
INDEX

MEASUREMENT TECHNIQUES

Volume 18, Numbers 1-12, 1975

1-1-77

2-1-77

MEASUREMENT TECHNIQUES

Volume 18, Numbers 1-12, 1975

(A translation of Izmeritel'naya Tekhnika)

A

Abadzhii, K. I. - 807
 Abgaryan, A. A. - 982
 Abdullaev, D. A. - 210
 Abdullaev, N. T. - 992
 Abkevich, I. I. - 43
 Abramov, E. M. - 13
 Abuladze, I. V. - 203
 Afanas'ev, G. K. - 1715
 Afans'ev, A. M. - 80
 Afanas'ev, Yu. V. - 116
 Agamirova, V. S. - 495, 1566
 Ageev, L. I. - 1823
 Agranovskii, S. G. - 906
 Akhiezer, A. N. - 1357
 Akopov, R. M. - 805
 Aleksandrov, Yu. I. - 1336
 Alekseev, P. P. - 1001
 Alekseeva, I. U. - 668, 1151
 Alekseeva, M. I. - 1457
 Aleksieva, S. G. - 986
 Almazov, I. A. - 1271
 Amatuni, A. N. - 267
 Ancuhin, E. P. - 670
 Andreev, A. A. - 1796
 Andriyanov, A. V. - 567
 Anisimov, N. I. - 110
 Antonov, V. G. - 734
 Antropov, G. A. - 1794
 Anufriev, A. A. - 101
 Aref'eva, T. V. - 95
 Aristov, E. M. - 263
 Amol'd, É. É. - 976
 Artamonov, A. T. - 1599
 Artemov, V. M. - 1837
 Artemov, V. I. - 1258
 Artemova, M. A. - 1348, 1537
 Arutyunov, V. O. - 1726, 1756
 Asmus, V. I. - 1831
 Astrov, D. N. - 1043
 Avdeev, V. N. - 766
 Avsievich, E. A. - 77

B

Babaev, S. S. - 943
 Baber, I. S. - 1105
 Babikov, R. F. - 1406
 Babin, S. A. - 263
 Babushkin, V. V. - 1351
 Baitursunov, V. K. - 1766
 Baklanov, V. F. - 213
 Balabukha, N. A. - 1783
 Balamatov, N. N. - 1239
 Balashov, V. G. - 451
 Barabanov, N. N. - 1087
 Baranovskii, B. I. - 1306
 Barbakadze, B. Sh. - 1701
 Bardin, V. P. - 145
 Bashirov, R. A. - 1507
 Basilevskii, Yu. Ya. - 1115
 Batarchukova, N. R. - 383, 1313
 Batovrin, A. A. - 1621
 Bazhenov, D. V. - 1735
 Bazilevskii, Yu. Ya. - 957
 Begun, P. I. - 1039
 Beilin, V. M. - 845
 Bekshlebnyi, V. I. - 403
 Belevitnev, V. R. - 1200
 Bel'deiko, Yu. N. - 1034
 Belikov, V. A. - 953
 Belomestnov, G. I. - 252
 Belotserkovskii, D. Yu. - 517
 Belyaev, V. M. - 1837
 Belyakov, S. D. - 101
 Belyakov, V. V. - 1855
 Benin, S. D. - 1500
 Bergman, I. V. - 943
 Berlin, G. S. - 95
 Berzin, S. A. - 1540
 Besfamil'naya, L. V. - 1578
 Beskhlebnyi, V. I. - 403
 Bezhenov, N. F. - 1512
 Bikmukhametov, K. A. - 372
 Biryukov, B. V. - 586, 1471
 Biserov, P. K. - 1093

Blagoveshchenskii, V. S. - 866
 Blanter, B. É. - 1397
 Blokhin, A. V. - 217
 Bobrik, V. I. - 1788
 Bobryshev, V. D. - 1065
 Bobylev, A. V. - 899
 Bogachev, A. M. - 451
 Bogdanovskaya, M. V. - 1596
 Boguslavskii, M. G. - 374, 1443
 Boichenko, D. K. - 1204
 Boichuk, V. G. - 860
 Boitsov, V. V. - 479, 1261
 Bolotin, Yu. I. - 90
 Bolotnikov, M. V. - 1026, 1288
 Bolotov, V. I. - 698
 Boltyanskii, A. A. - 1009
 Bondarenko, A. N. - 403
 Bordilovskii, A. F. - 1397
 Bragin, B. K. - 1654
 Braillov, É. S. - 644
 Brazhnichenko, G. N. - 1651
 Brazhnikov, N. I. - 1834
 Bregadze, Yu. I. - 444, 535, 1080, 1234
 Brodskaya, M. Ya. - 764
 Bron, M. E. - 1321, 1466
 Bronnikov, A. A. - 1209
 Brovdii, N. K. - 712
 Brunov, V. V. - 1639
 Bryatov, A. S. - 745
 Bryskin, A. I. - 771
 Bryukhanov, B. K. - 1792
 Bryukhanov, V. A. - 1574
 Buachidze, D. V. - 841
 Buchinskii, Ya. V. - 307
 Budanov, A. S. - 1607
 Bukreev, V. S. - 821
 Bulatov, S. B. - 1574
 Bun'ko, V. A. - 153
 Burdun, G. D. - 1375, 1770
 Burov, G. V. - 1018
 Burshtein, L. M. - 1818
 Busarov, Yu. P. - 1482
 Buslaeva, V. E. - 682

Butenko, V. A. - 1696
Buyanover, O. D. - 1324

C

Chaikovskii, O. I. - 1129
Chaikovskii, V. I. - 463
Chanishvili, G. V. - 1688
Chapalkin, V. L. - 641
Cheburkov, D. I. - 276, 1056, 1678
Chelpanov, I. B. - 1740
Chemyshev, V. I. - 473
Chernets, S. N. - 1463
Chemikov, V. Z. - 1675
Chernov, V. V. - 1735
Chervinskii, M. M. - 1346
Cherverukhin, B. M. - 301
Chistyakov, Yu. A. - 552
Chubarov, V. V. - 1135
Chudnovskii, I. A. - 821
Chuiko, V. G. - 532
Chukhlil, V. I. - 1636

D

Dadashev, R. S. - 1242, 1371
Danilevich, F. M. - 80, 1443
Danilov, M. A. - 586, 974, 1471
Darakhvelidze, L. V. - 841
Dashkleva, L. G. - 1463
Davtyan, G. V. - 1185
Davydov, V. B. - 591, 751
Deich, Z. Sh. - 953
Demidenko, A. I. - 20
Derzhinyants, B. R. - 1680
Dirchko, A. F. - 1705
Dirkov, A. G. - 716
Dmitrevskii, N. N. - 1072, 1809
Dmitrienko, A. D. - 252
Dobrovinskii, I. E. - 1654
Dol', I. I. - 755
Dolbeshchenkov, A. K. - 1037
Dolgin, V. P. - 365
Dolgikh, I. I. - 1050
Dolgushin, A. M. - 1406
Dolinskii, E. F. - 1324
Dolitskii, I. N. - 1651
Dolya, V. N. - 460
Domareva, T. M. - 1636
Domarkas, V. I. - 239
Domrachev, V. G. - 1590, 1629
Dorogov, V. N. - 1450
Drobot, Yu. B. - 90
Druzhilovskii, Ya. N. - 1672
Dubov, B. S. - 28
Dubrovin, Yu. M. - 968

Dubrovskii, V. V. - 606
Duda, M. A. - 307
Dudkevich, B. N. - 1526
Dukhanina, M. I. - 1452
Dulov, M. I. - 1177
Dunyashev, V. G. - 472
Dutikov, N. I. - 1382
Dvukhimmennyi, V. A. - 456
Dybaki, R. V. - 1463
Dyukov, M. M. - 1394
Dzhaparidze, T. D. - 761
Dzhuranovich, R. T. - 172

E

Efremov, O. N. - 442
Egorov, I. V. - 67
Egorov, N. A. - 1095
Egorychev, L. N. - 109, 1831
Éksler, L. I. - 229
Eleinikova, L. S. - 845
Él'darov, F. G. - 1213
Éliashberg, V. M. - 374
El'kin, S. R. - 1701
Emel'yanov, N. N. - 751
Ermakov, V. I. - 499
Eryukhin, A. V. - 541, 1324
Esytin, A. A. - 719

F

Fal'kovskii, N. I. - 297
Farfel', A. I. - 298
Farzana, N. G. - 1645
Fedorenko, T. A. - 1651
Fedorov, A. M. - 316, 556, 1342
Fedorov, Yu. A. - 85
Fedorova, L. N. - 1359
Fedoseev, N. N. - 1831
Fedyaeva, É. S. - 652
Fedyukina, S. Ya. - 1389
Fel'dman, R. V. - 571
Fertik, N. S. - 389
Feshchenko, L. P. - 1675
Filatov, Yu. V. - 1641
Filimonov, R. P. - 132
Filippov, V. N. - 176
Filippova, L. E. - 254
Filonchik, R. V. - 1043
Finkel'shtein, V. E. - 1334
Firsov, M. D. - 1535
Fomenko, V. A. - 1535
Fomenko, V. I. - 109
Fomichev, Yu. M. - 1696
Fomicheva, Z. I. - 442
Fomin, I. K. - 838

Fominykh, Yu. A. - 782
Frenkel', I. M. - 545
Frenkel', L. Ya. - 854
Fridman, A. E. - 1571
Frolova, A. V. - 1084
Frumkin, A. L. - 1524
Frumkin, V. D. - 532
Furman, B. A. - 597
Fursov, N. D. - 1275, 1571

G

Gafanovich, G. Ya. - 1311, 1412
Galakhova, O. P. - 109, 1339
Galanina, Yu. S. - 784
Galkina, V. N. - 383
Gangnus, V. S. - 428
Ganzin, M. P. - 1447
Gammerman, M. Ya. - 974
Gaponov, M. L. - 624
Gavrilov, A. A. - 1607
Gazetov, S. P. - 1476
Gel', L. P. - 749
Generalova, V. V. - 1368
Gershkovich, E. A. - 764, 912, 917
Gershkovich, S. N. - 1543
Getmanov, A. G. - 716
Girshfel'd, L. Z. - 52
Girshovich, Yu. E. - 1144
Gladkikh, L. D. - 1213
Glagolev, S. F. - 601, 1346
Glagovskii, B. A. - 832
Glazyrin, P. S. - 417, 419
Gliberman, A. Ya. - 1023
Glukhov, N. N. - 621
Glukhov, Yu. P. - 1839
Gnatyuk, L. N. - 387, 1014
Gogoladze, Z. Z. - 1750
Gogolev, N. L. - 1651
Gokhner, A. S. - 1831
Goldobina, L. S. - 1060
Golovashkin, M. A. - 1119, 1401
Golubev, P. I. - 1138
Golubkov, V. S. - 22
Gorban', A. M. - 377
Gorbatsevich, S. V. - 510
Gorbunov, I. P. - 1329, 1346
Gordeev, V. D. - 591
Gordov, A. N. - 1480
Gorelik, D. O. - 875, 887, 925, 928
Gorelikov, N. I. - 860
Goretskaya, N. K. - 710
Gorev, V. S. - 1535
Gorina, N. Yu. - 324, 1816
Gornshtein, B. Ya. - 882, 887, 895

Granovskii, V. A. - 1726, 1756
 Grechinskii, D. A. - 722
 Greshnikov, V. A. - 90, 1297,
 1692, 1849
 Gribok, N. I. - 1131
 Grigor'ev, A. V. - 556
 Grigor'ev, V. N. - 1799
 Grigorovskii, B. K. - 1792
 Grinberg, A. B. - 925
 Grinets, V. D. - 876
 Grishin, S. D. - 1823
 Grishin, Yu. M. - 1018
 Gryazina, L. I. 890, 904, 912, 931
 Grobovitskii, M. I. - 1348, 1537
 Gromov, S. S. - 129
 Gubin, I. T. - 1692, 1849
 Gudreniks, V. E. - 174
 Gugelev, V. M. - 1621
 Gulgazarya, K. A. - 1460
 Gumenyuk, B. V. - 1220
 Gurari, M. L. - 1014
 Gurskii, M. N. - 1368
 Guseinov, A. M. - 751
 Gusev, V. G. - 119
 Gusev, V. I. - 654
 Gushchin, V. G. - 1177

I

Idelevich, A. Ya. - 149, 1779
 Ignat'ev, E. B. - 1773
 Il'in, A. V. - 1394
 Il'in, V. G. - 517, 1288
 Intsin, Yu. A. - 745
 Ionatamishvili, T. V. - 1688
 Ioramashvili, D. V. - 1750
 Isaev, B. M. - 485
 Iovenko, V. V. - 1830
 Ivanova, D. Yu. - 411
 Ivanov, N. I. - 248, 389
 Ivanov, V. P. - 1509
 Ivanov, V. M. - 424
 Ivanov, V. V. - 1701
 Ivanova, A. G. - 1540
 Ivanova, T. A. - 417
 Ivanyuk, N. A. - 107
 Ivashchenko, P. A. - 604
 Ivlev, A. I. - 328, 635, 793, 957,
 1275
 Iyukovich, A. M. - 1504

K

Kabanov, P. S. - 971
 Kachan, Yu. G. - 873
 Kaganov, M. A. - 1142, 1144

Kalendarev, V. I. - 788
 Kalenov, I. N. - 591
 Kalintseva, V. M. - 1853
 Kalmanovskii, V. I. - 140
 Kalyapin, V. M. - 1223
 Kamuz, V. K. - 1798
 Kandyba, V. V. - 520, 524, 1302,
 1334, 1410
 Kanyavskii, Ya. I. - 347
 Kaplan, M. L. - 1785
 Kaprielyan, É. M. - 1023
 Karataev, V. D. - 574
 Karchkov, V. A. - 1491
 Karetnikov, S. N. - 1065
 Karlashchuk, V. I. - 1518
 Karmalitsyn, N. I. - 680
 Kartashov, G. D. - 707
 Kashchenko, O. B. - 1248
 Kasich, B. P. - 835
 Kasimov, R. M. - 294
 Katemirova, V. T. - 198
 Kayak, L. K. - 513, 670, 1309
 Kazitsyn, N. V. - 437
 Keshlakov, V. M. - 1147
 Ketkovich, A. A. - 1217
 Khanko, L. F. - 1034
 Kharach, G. M. - 229
 Khar'ko, A. I. - 1672
 Kholodkov, A. L. - 1535
 Khomyak, V. A. - 1554
 Khoreva, R. A. - 26
 Khorokhorov, A. M. - 271
 Khoteev, N. V. - 1488
 Khramov, A. V. - 644, 1686
 Khromov, A. V. - 1452
 Khrumalo, V. M. - 1761
 Khrustalev, Yu. P. - 252
 Khuchua, V. S. - 1701
 Khulap, G. S. - 1217
 Kiparenko, V. I. - 490, 1266
 Kipnis, A. M. - 339, 690, 1484
 Kirenkov, I. I. - 1656
 Kirnosov, V. I. - 1389
 Kirsh, A. A. - 456
 Kiselev, B. R. - 964
 Kiselev, M. I. - 982
 Kislova, N. G. - 1292
 Kivilis, S. S. - 586, 1471
 Klement'ev, V. M. - 372
 Klemin, L. V. - 1504
 Klimashevskii, V. S. - 953
 Klimov, S. P. - 1075
 Klugman, I. Yu. - 1500
 Knonvalov, V. I. - 466
 Kobyllov, N. B. - 1500
 Kochan, V. A. - 361

Kochan, V. V. - 942
 Kofman, M. I. - 284
 Kogan, I. Sh. - 1812
 Kolchin, O. M. - 408
 Kolesov, V. N. - 1666
 Kolinko, N. B. - 151
 Kollerov, D. K. - 140, 324,
 875, 878, 887, 908
 Kolmakov, Yu. P. - 1060
 Kolomnikov, Yu. D. - 1788
 Kolosov, V. I. - 309
 Kolotilova, V. G. - 1084
 Koltik, E. D. - 560
 Kol'tsov, I. M. - 579
 Komarovskii, O. K. - 67
 Konchakov, G. D. - 1429
 Kondorov, A. A. - 1009
 Kondratenko, M. I. - 1482
 Konopel'ko, L. A. - 906, 917, 925
 928
 Konovalov, S. I. - 775
 Konovalov, V. A. - 1836
 Konstantinov, V. A. - 1692
 Kopytin, N. M. - 28
 Kopytov, V. V. - 829, 1776
 Korablev, I. V. - 38, 563, 1156,
 1163
 Korndorf, V. A. - 1783
 Korol, R. I. - 668
 Korolev, V. I. - 26
 Koronik, V. V. - 745
 Korotkov, N. I. - 311
 Korytko, E. P. - 695
 Korzh, V. F. - 252
 Kosinskii, A. V. - 1602
 Kostich, B. E. - 1004
 Kotel'nikov, N. I. - 155, 477, 1832
 Kotel'nikov, N. L. - 477
 Kotenev, B. M. - 769
 Kotlyar, V. P. - 153
 Kotlyarker, M. E. - 1773
 Kotyuk, A. F. - 75, 685, 1639
 Koval', N. A. - 460
 Kovalenko, B. M. - 1375
 Kovalenko, M. A. - 873
 Kovanina, N. N. - 1105
 Kovanova, T. S. - 254
 Kovatsenko, E. G. - 162
 Kozak, A. A. - 291
 Kozhemyakin, V. A. - 1535
 Kozlov, A. D. - 1280, 1713
 Kozlov, B. I. - 1571
 Kozlov, S. G. - 1844
 Kozlov, V. I. - 626
 Kozyrev, B. P. - 413
 Kozyryatskii, I. P. - 472

Kramnyuk, A. I. - 1696
 Kravchenko, S. A. - 560
 Kravchenko, V. F. - 1065
 Kriksunov, V. M. - 657
 Krimshstein, Ya. A. - 657
 Krivchenok, B. B. - 577
 Krizhimovskii, V. I. - 556
 Kroitor, S. G. - 1392
 Krylov, V. V. - 567
 Krylova, N. O. - 1020
 Kryuchkov, L. N. - 805
 Kuchin, A. A. - 54
 Kudryavtsev, L. A. - 408
 Kugaevskii, A. F. - 724
 Kulakov, M. V. - 563, 1156
 Kulakov, V. M. - 1403
 Kulakov, V. V. - 1420
 Kulikov, I. V. - 661
 Kurepin, M. G. - 219
 Kurtnyk, I. P. - 419
 Kurochka, P. F. - 1488
 Kuryshcheva, L. N. - 1026
 Kuskov, G. S. - 734
 Kuz'min, V. A. - 258, 1480, 1540
 Kuz'mina, L. P. - 1425
 Kuznetsov, B. A. - 612
 Kuznetsov, S. N. - 777
 Kuznik, Yu. S. - 127

L

Lachugin, Ya. M. - 32
 Lapp, G. B. - 850
 Laptei, D. A. - 728
 Latonov, Yu. I. - 1696
 Lazenias, G. B. - 577, 1423
 Lebedev, M. B. - 1195
 Lebedev, V. G. - 1053
 Lebedev, V. I. - 1327
 Leifer, L. A. - 298
 Leikin, A. Ya. - 88, 389
 Lekhtamakher, S. O. - 758
 Leonov, I. G. - 1165
 Leonov, V. V. - 213, 814
 Lapanov, Yu. S. - 591
 Levchenko, Yu. D. - 1488
 Levin, M. A. - 233
 Levin, V. M. - 1195
 Lichman, A. G. - 597
 Likhtsinder, B. Ya. - 745
 Lifshits, L. M. - 1645
 Limanov, I. A. - 1227
 Linets, V. A. - 333
 Linker, B. Yu. - 88
 Lisenkov, A. I. - 33
 Lisin, S. K. - 674

Litvinov, A. M. - 301
 Lizunov, V. D. - 829, 1776
 Lobytsev, E. S. - 737
 Lodi, M. N. - 1006
 Lomaev, G. V. - 1037
 Lopan', V. R. - 104
 Lopovok, T. S. - 824, 1770
 Lovinskii, L. S. - 75, 685
 Lubyanyi, L. Z. - 739
 Lubyanyi, V. A. - 1798
 Luchkin, S. L. - 1147
 Lukashenko, L. I. - 739
 Lukoshkov, V. V. - 1836
 Luk'yanov, V. S. - 47, 67
 Lupinskii, M. M. - 1105
 Lushchayev, G. A. - 1491
 Lushchikov, I. I. - 1014
 Lutsyk, N. Yu. - 466
 L'vov, V. N. - 237
 Lyakun, S. F. - 226
 Lyakhovets, O. G. - 789
 Lysak, A. T. - 437
 Lyubimov, L. A. - 442
 Lyubimtsev, M. Ya. - 1794

M

Machul'skii, F. F. - 574
 Maistrenko, V. F. - 377
 Makarov, G. N. - 210
 Makievskii, A. E. - 1804
 Maksimov, V. P. - 1607
 Malikov, G. F. - 581
 Malitskii, M. F. - 1578
 Mal'kov, I. Ya. - 1682
 Mallin, U. S. - 1408
 Malyshev, B. V. - 1666
 Malyutina, T. I. - 267
 Mamadaliev, M. - 1796
 Mamaev, V. L. - 579
 Mamchev, G. V. - 352
 Mandel'shtam, S. M. - 203
 Mandrovskii-Sokolov, B. Yu. - 712
 Manokhin, A. E. - 692, 698, 1198
 Manvelishvili, N. I. - 841
 Marchenko, M. K. - 1105
 Marchenko, S. N. - 387, 1014
 Mardin, V. V. - 333, 801
 Marinov, S. G. - 1165
 Markatun, M. G. - 992
 Markov, N. N. - 817
 Markova, L. A. - 579
 Martirosov, D. S. - 824
 Martirosov, V. D. - 766
 Martirosyan, S. T. - 1599
 Maslov, L. A. - 90

Maslyayev, P. F. - 1080, 1234
 Matveev, Yu. A. - 15, 349
 Medvedev, A. N. - 1181
 Meiko, B. S. - 1590
 Mekhannikov, A. I. - 532
 Mekhonoshin, P. I. - 1547
 Melekhov, M. E. - 134
 Melekhova, N. A. - 95
 Melkumyan, V. E. - 459
 Menchikov, V. M. - 235
 Merkulov, V. D. - 1837
 Merzlyakov, Yu. M. - 1037
 Meskhidze, R. N. - 761
 Mif, N. P. - 495, 797, 1266, 1401
 Miglyachenko, A. F. - 222
 Mikhailenko, V. D. - 333, 801, 1401, 1853
 Mikhailov, A. V. - 950
 Mikhchev, V. P. - 579
 Mikina, V. D. - 1336
 Mikuckis, Yu. Yu. - 577
 Mil'shtein, B. G. - 1047
 Mironenko, A. A. - 1625
 Mironov, Yu. S. - 677
 Mishchenko, D. V. - 852
 Mogil'nitskii, B. S. - 1788
 Mokrisnii, S. P. - 311
 Moldavskii, L. M. - 743
 Molodyk, A. M. - 1023
 Mol'nar, A. G. - 663
 Morar, A. V. - 84
 Morozova, T. B. - 556
 Movsesyan, V. M. - 712
 Mukharev, L. A. - 784
 Muratov, N. I. - 444
 Mushkin, I. G. - 1142, 1144
 Muzalevskii, V. I. - 618

N

Nagorskii, I. S. - 1034
 Naidenov, A. S. - 688
 Nalbandov, L. V. - 682, 1315
 Naumov, G. P. - 153
 Nazarenko, A. M. - 953
 Nazarenko, L. A. - 1659
 Nesterov, A. F. - 84
 Nevleva, V. N. - 786
 Nezhikhovskii, G. R. - 904
 Nikiforova, Z. S. - 790
 Nikitin, A. M. - 1596
 Nikitin, N. V. - 129
 Nikitin, V. A. - 1313
 Nikolayev, V. A. - 784
 Nonezov, R. G. - 1826
 Novikov, E. V. - 468

Novikova, L. S. - 1855
Novitskii, P. V. - 668
Novoderezhkin, V. E. - 560

O

Obelevskaya, K. M. - 361
Obozovskii, S. S. - 1126, 1129
Obradovich, K. A. - 59
Obukhov, A. S. - 1706
Ogorodnikov, S. N. - 1823
Okorokova, O. S. - 132
Oleinik, B. N. - 520, 524, 1332, 1336
Oleinik, S. V. - 1746
Oleinikova, L. D. - 1429
Onishchenko, A. M. - 1532
Orgutsov, V. M. - 1414
Orlov, S. B. - 803
Orzhanskii, D. L. - 890, 931
Oshis, É. K. - 182
Osipov, Yu. A. - 1420
Osmolovskaya, E. P. - 1006, 1454
Ostankov, B. S. - 1839
Ostromukhova, G. P. - 1362
Ostrovskii, G. N. - 1177
Osvetinskii, A. A. - 397
Ovsienko, A. K. - 873
Ozol, V. I. - 192, 200

P

Pak, V. - 417
Pakhomov, I. I. - 271
Palagin, V. K. - 1161
Palagina, Yu. B. - 716
Palatnik, L. S. - 739
Pali, G. N. - 85
Paneva, V. L. - 1582
Panin, I. A. - 1090
Panin, V. I. - 403
Paramonov, G. K. - 755
Parashin, V. B. - 771, 1246
Parshukov, P. A. - 242
Partskhaladze, K. G. - 841
Pashev, G. P. - 391
Pashkevich, R. É. - 1831
Pashkin, V. N. - 26
Patrarchyi, V. A. - 654
Paul, A. - 1770
Pavlenko, Yu. F. - 1248
Pavlov, B. P. - 850, 1654
Pavlov, L. E. - 1072, 1809
Pavlov, O. A. - 1611
Pavlov, V. A. - 1043
Pavlova, R. A. - 1783
Pavlovskii, A. N. - 393, 1030

Pavlovskii, B. A. - 263
Pazhkovskii, N. A. - 122
Pellinets, V. S. - 1105, 1329, 1647, 1726
Peredel'skii, G. I. - 1509
Perel'man, E. I. - 1321, 1466
Perel'shtein, E. L. - 24, 649
Perets, M. I. - 1200
Pereverzev, B. L. - 775
Peshchanskii, Yu. A. - 1144
Petropavlovskii, V. P. - 1596
Petrov, N. B. - 1355
Petrova, G. A. - 1582
Petrovskii, A. A. - 719
Pikhteleev, A. I. - 391
Pikin, N. G. - 1403
Pil'puk, V. D. - 22
Pinskii, F. S. - 943
Pinyushin, N. N. - 1379
Piskalov, L. M. - 1823
Piskunova, L. P. - 324
Pistun, E. P. - 1549
Pkhakadze, B. D. - 1701
Plakhotnyuk, A. N. - 1431
Pliner, Yu. L. - 615, 1414
Plotnikov, I. V. - 1324
Plotnikov, V. P. - 1195
Pluzhnik, V. I. - 242
Podtepa, A. P. - 408
Podgornyi, Yu. V. - 431
Pogodaev, A. Ya. - 1526
Pogodin, V. I. - 424
Poida, V. N. - 712
Pokrovskaya, G. N. - 850
Polishchuk, E. S. - 284
Pologov, V. P. - 782
Polukhin, G. I. - 1324
Polyak, A. G. - 1026
Polyudov, V. V. - 494
Ponomarev, V. M. - 271
Pontus, L. A. - 790, 1839
Popov, A. D. - 1698
Popov, V. A. - 1161
Popov, V. V. - 495, 641
Popov, Yu. A. - 1217
Popruzko, L. A. - 1364
Potapov, B. V. - 311
Pozharov, A. V. - 1246
Pozdnyak, M. D. - 185
Privalov, V. E. - 1641
Pronin, L. A. - 1179
Pruidze, V. E. - 761
Pultorak, V. K. - 1454
Pushkarev, G. M. - 703, 710
Pushkarev, V. V. - 1140

R

Rabeshko, M. M. - 1129
Rabinovich, S. G. - 1726, 1756
Radchik, A. S. - 265
Raikhman, A. F. - 1248
Raikhman, Ya. A. - 1636
Rakunova, T. Ya. - 1846
Ramonis, A. A. - 1012
Rasin, A. M. - 1060
Regel', A. R. - 1796
Rettel', A. I. - 710
Reshetnev, S. D. - 20
Rezanova, M. G. - 1454
Reznik, K. A. - 810, 1153
Riskin, I. V. - 574
Rivin, A. N. - 1078
Rodionov, Yu. N. - 125
Rogel'berg, I. L. - 850
Roitman, M. S. - 439, 1696
Roman'ko, K. S. - 1500
Romanov, V. G. - 1140
Rozhdestvenskaya, T. B. - 109, 1339
Rozhdestvenskaya, T. V. - 527
Rozitis, É. A. - 189
Rozov, B. S. - 579
Rubenchik, B. Ya. - 1174
Rudenko, V. N. - 574
Rudnev, A. P. - 875
Rudnev, O. N. - 1053
Rudzit, Ya. A. - 63
Rukman, G. I. - 387, 1452
Rumak, V. G. - 1192
Rumyantsev, S. V. - 6
Rusina, V. N. - 1324
Ruzer, L. S. - 758
Rvachev, V. V. - 265
Ryabova, R. V. - 1014
Rygalin, V. G. - 722
Ryumshin, V. L. - 858
Ryvkin, M. I. - 647
Ryzhkov, G. P. - 113

S

Sadovskii, A. B. - 391
Safarov, G. A. - 1574
Safonov, O. A. - 397
Samoilov, L. N. - 75, 685, 1639
Samoilovich, A. I. - 88
Samokhina, A. Ya. - 1414
Samokovlitski, D. A. - 986
Sapritskii, V. I. - 75, 685
Sapronov, B. A. - 797
Sarkisyan, R. E. - 1041

Sashnikov, V. I. - 635
 Saunin, V. N. - 728
 Savchenko, S. P. - 153
 Savenko, V. L. - 237
 Savin, O. R. - 460
 Savitskii, F. S. - 98
 Savkin, A. A. - 716
 Sazhin, S. G. - 1812
 Sazhin, V. V. - 1288
 Sayaskas, S. I. - 239
 Sekushenko, N. F. - 829, 998
 Seleznev, Yu. V. - 113
 Selivanov, L. V. - 1853
 Selivanov, M. N. - 1299
 Selivanov, P. N. - 626, 1299
 Selyukov, Yu. Z. - 1012
 Semchishin, I. V. - 1168
 Semenko, N. G. - 538, 1417
 Semenov, M. V. - 730
 Semenov, V. S. - 1209
 Semenyuk, A. L. - 644
 Semezhavichyus, R. S. - 1012
 Sen'ko, A. P. - 1357
 Sen'ko, V. F. - 612
 Serebrennikov, V. A. - 1087
 Seredenko, B. G. - 953
 Seregin, E. I. - 1165
 Sergeev, I. A. - 556
 Sergeev, O. A. - 524, 545, 552, 1336
 Sergeev, V. M. - 1696
 Sergeeva, A. I. - 998
 Sevast'yanenko, A. N. - 408
 Shaevich, A. B. - 615, 1284, 1582
 Shaikhullin, A. G. - 1406
 Shaposhnikova, M. I. - 716
 Sharin, Yu. S. - 1625
 Sharnopol'skaya, E. T. - 282
 Sharonov, G. N. - 928
 Sharonov, M. G. - 254
 Shchebetun, P. D. - 122
 Shcherbakov, I. M. - 18, 1842
 Shcherbakov, Ya. E. - 244
 Shchelkin, A. P. - 116
 Sheinina, E. R. - 931
 Shelepaev, A. G. - 1068
 Shershakov, P. N. - 437
 Shevelev, V. V. - 1209
 Shichko, E. A. - 1524
 Shikut', A. V. - 271
 Shil'kov, A. I. - 1213
 Shin, V. - 442
 Shirokov, K. P. - 504, 1299, 1726
 Shivrín, Yu. P. - 470
 Shkabardnya, M. S. - 1401
 Shkalikov, V. S. - 1327

Shkebardnaya, M. S. - 960
 Shkolin, V. P. - 1615
 Shkol'nik, V. M. - 136
 Shkraba, V. T. - 1043
 Shliomovich, M. Kh. - 801
 Shlyandin, V. M. - 606
 Shlykov, G. P. - 606
 Shlyumba, V. A. - 577
 Shmorgun, E. I. - 1133
 Shor, M. Ya. - 941
 Shpan'on, P. A. - 953, 1248, 1355
 Shtefka, I. - 989
 Shumilin, V. P. - 1324
 Shurupov, P. A. - 437
 Shvaiko, S. N. - 1450
 Shvydchenko, A. G. - 1535
 Sigal, G. L. - 475
 Sikkarulidze, V. M. - 369
 Silin, A. V. - 1414
 Siluyanov, B. P. - 288
 Sil'vestrov, S. V. - 1072, 1809
 Simaev, S. Sh. - 1701
 Simbrskii, D. F. - 1746
 Simkina, F. G. - 1311
 Simonov, V. M. - 1529
 Simulik, M. D. - 921
 Sinel'nikov, A. E. - 1327
 Sinel'nikova, L. A. - 789
 Sinitsyn, N. V. - 1596
 Sivkov, B. V. - 122
 Skipa, V. I. - 153
 Skorik, G. S. - 98, 213
 Skryabin, N. P. - 1829
 Skurikhin, A. V. - 782
 Slabkii, L. I. - 996
 Slavinskii, V. M. - 1532
 Smagin, A. G. - 1047
 Smirnova, É. N. - 1672
 Smirnova, G. A. - 938
 Smirnova, N. A. - 938, 1319
 Smolko, L. V. - 668
 Snegov, V. C. - 1847
 Sobolev, A. B. - 722
 Soitu, V. A. - 1443
 Sokolov, B. K. - 904
 Sokolov, E. A. - 1452
 Sokolov, I. A. - 1443
 Sokolov, V. M. - 604, 1669
 Sokolova, I. V. - 1414
 Sokova, A. A. - 1242
 Solodukhin, A. V. - 274
 Solodukho, F. M. - 59, 1171
 Sologyan, I. Kh. - 1280, 1713, 1491
 Solomakha, D. A. - 151
 Soloshenko, A. M. - 789

Solov'ev, V. I. - 936
 Sorokina, I. S. - 1317
 Spiridonov, E. I. - 1469
 Spirin, V. K. - 1427
 Spivakova, V. L. - 301
 Stadnyk, B. I. - 419
 Stakhiev, Yu. M. - 1836
 Stanchev, I. B. - 986
 Starostinetskii, Yu. A. - 1632
 Stavtseva, L. I. - 1654
 Stepanov, É. K. - 447
 Stepanov, L. N. - 304
 Stepanov, L. P. - 1482
 Stepanova, I. V. - 517
 Sterzhakov, V. M. - 18, 1842
 Strakhun, G. I. - 1781
 Streletskii, R. P. - 788
 Strelkova, E. I. - 422
 Strokov, V. A. - 1217
 Subbotin, L. S. - 1521
 Subbotin, M. I. - 1647
 Sukhenko, T. V. - 1554
 Suminov, V. M. - 77
 Sungurov, V. I. - 314, 1097
 Surova, E. Ya. - 1389
 Sus, A. N. - 428
 Suvorkin, V. S. - 1256
 Sverdlchenko, G. D. - 1230
 Sverdlov, L. S. - 178
 Sviridovskii, I. S. - 104
 Sychev, V. V. - 495, 1280, 1713

T

Talalaev, G. A. - 1252
 Tarasov, S. B. - 674
 Tarasova, N. Ya. - 107
 Tarbeev, Yu. V. - 875
 Tarshish, M. S. - 206
 Tartakovskii, D. F. - 1540, 1726
 Tatarashvili, D. A. - 552
 Telenkov, V. I. - 434
 Teleshevskii, V. I. - 70
 Telitchenko, G. P. - 316, 422
 Tel'pukhovskii, N. A. - 1026
 Ten, É. P. - 574
 Tenenbaum, Yu. Z. - 674
 Terekhov, V. M. - 606
 Teret'eva, Yu. Kh. - 1389
 Terletskaya, L. A. - 431
 Tikhomirov, S. V. - 1639
 Tikhonov, V. I. - 424, 1406
 Tikhonov, V. V. - 1588
 Timchenko, P. M. - 265
 Timonteev, V. N. - 868
 Tipashov, V. I. - 1551

Tkachenko, R. A. - 1131
 Tkachev, V. G. - 1585
 Toloknovskii, V. R. - 835
 Tolpina, S. P. - 1014
 Tolstonogova, M. G. - 1009
 Tolstousov, A. V. - 15
 Topaz, L. E. - 1403
 Toropin, S. L. - 1847
 Trachenko, V. A. - 868
 Tret'yakova, S. I. - 777
 Trishin, N. V. - 223, 1001
 Trofimova, N. V. - 1636
 Trotsenko, V. P. - 90, 403
 Trubetskoi, M. N. - 147
 Trumpol'd, G. - 1770
 Trunov, A. I. - 1435
 Tuchin, V. N. - 755
 Tultaev, A. V. - 444
 Tunik, A. A. - 712
 Tupichenkov, A. A. - 1853
 Turovskii, V. A. - 1469
 Turyanskii, V. P. - 1669
 Tutane, Z. A. - 680
 Tsapenko, E. F. - 1663
 Tsaitlin, V. G. - 1853
 Tsepanov, Yu. V. - 1122
 Tsiber, A. L. - 594
 Tsvetkov, E. I. - 960
 Tsvetkova, V. V. - 95
 Tyazhel'nikov, V. V. - 1826
 Tyrsa, V. E. - 357
 Tyurev, A. V. - 132
 Tyutekin, V. V. - 1075
 Tyutikova, M. I. - 938, 1188
 Tyutin, Yu. D. - 850

U

Udovichenko, E. T. - 1304
 Ul'yanov, A. A. - 1288
 Urakseev, M. A. - 826
 Uryaev, I. A. - 1364
 Usachev, V. A. - 1790
 Useinova, S. M. - 294
 Ushakova, L. N. - 1321
 Uspenskii, Yu. P. - 947
 Uvarov, V. I. - 1703

V

Vaisband, M. D. - 1752

Vaisberg, É. I. - 460
 Val'chikhin, D. D. - 413
 Val'skii, Ch. Yu. - 1515
 Vanaga, Kh. D. - 195
 Van'kovich, R. I. - 1168
 Varga, S. A. - 775
 Vartazarov, É. G. - 766
 Vasil'ev, A. P. - 937
 Vasil'ev, A. G. - 1532
 Vedyushkin, G. A. - 724
 Vekslet, M. S. - 960
 Vel'tishchev, Yu. I. - 13
 Veprev, E. I. - 345
 Veraksich, E. A. - 870
 Verblovskii, G. S. - 336, 1124
 Veretennikov, V. I. - 52
 Veselago, V. G. - 424
 Vinnik, V. I. - 635, 875, 1578
 Vishenkov, A. S. - 1321
 Vizen, G. A. - 129
 Vlasov, A. I. - 1509
 Vlasov, N. I. - 1587, 1785
 Vlasov, V. L. - 1181
 Voinov, K. N. - 904
 Vol'berg, N. Sh. - 917
 Volkov, N. P. - 1599
 Volkova, E. A. - 682, 1315, 1317
 Vol'pert, V. Ts. - 374
 Vostroknutov, N. N. - 1147
 Vovk, A. E. - 1075

Y

Yablonskaya, N. F. - 931
 Yachmentsev, O. V. - 1001
 Yagola, G. K. - 1529
 Yakker, M. H. - 1144
 Yakirin, R. V. - 1828
 Yakovlev, I. M. - 1023
 Yakovlev, S. G. - 1119
 Yakovlev, V. A. - 77, 821, 1639
 Yakusheva, N. A. - 180
 Yambikov, V. A. - 594
 Yanchurkin, B. S. - 1666
 Yanenko, A. F. - 608
 Yanovskii, A. P. - 1364
 Yaroshenko, Yu. N. - 280, 1070
 Yaroslavskii, M. I. - 442
 Yartisyana, I. A. - 1366
 Yashchenko, P. F. - 10

Yasnitskii, S. I. - 284
 Yastrebov, O. I. - 1801
 Yavorskii, B. I. - 307
 Yudin, M. F. - 535, 1359, 1362, 1364
 Yumatov, V. N. - 628
 Yuras, S. F. - 263
 Yur'eva, G. A. - 424
 Yurkov, Y. A. - 437
 Yurtaev, N. A. - 1588

Z

Zabezhinskaya, S. T. - 1095
 Zaets, E. A. - 328, 971
 Zaitsev, Yu. N. - 466
 Zakharchenko, V. V. - 460
 Zaks, L. M. - 328, 495, 793, 803, 1266, 1566
 Zamyatin, A. P. - 187
 Zanichkovskaya, L. V. - 361, 942
 Zaripov, M. F. - 826, 1227
 Zaslavskii, A. G. - 1142
 Zastrogina, Yu. F. - 1200
 Zatulovskii, S. M. - 328
 Zayanchkovskii, Yu. I. - 835
 Zedginidze, G. P. - 369, 1750
 Zelenskii, A. V. - 1204
 Zen'kovich, A. V. - 1551
 Zhabotinskaya, V. D. - 1463
 Zhagora, N. A. - 805
 Zharkoi, Yu. V. - 1217
 Zharkov, A. P. - 1596
 Zhigulin, Yu. N. - 1206
 Zhilin, G. P. - 728
 Zhilin, N. S. - 1521
 Zhizhin, G. N. - 821
 Zhokhovskii, M. K. - 156, 1495
 Zholkina, I. S. - 473
 Zhutovskii, V. L. - 1571
 Zil'berman, M. S. - 829
 Zimin, G. F. - 1258
 Zimin, N. P. - 608
 Zinchenko, V. N. - 741
 Zingerman, V. I. - 1348, 1537
 Zinov'ev, V. E. - 749
 Znamenskii, R. B. - 1826
 Zotii, V. I. - 361
 Zuev, E. V. - 391
 Zul'fugarzade, É. É. - 964
 Zyazev, Yu. A. - 304

1-1-22

TABLES OF CONTENTS

MEASUREMENT TECHNIQUES

Volume 18, Numbers 1-12, 1975

(A translation of Izmeritel'naya Tekhnika)

Volume 18, Number 1

January, 1975

Engl./Russ.

Appeal of the All-Union Scientific-Research Institute of Standardization Personnel to All the Organizations of the USSR State Committee of Standards System in Connection with the 50th Anniversary of Establishing the State Standardization System in the USSR	1	3
Standardization Plan for 1975	3	4
METROLOGICAL SERVICE		
Industrial Metrological Servicing and Methods for Raising Its Efficiency — S. V. Rumyantsev	6	6
Unified System for Controlling Metrological Supervision of Production — P. F. Yashchenko	10	8
Metrological Examination of Technological Documents — E. M. Abramov and Yu. I. Vel'tishchev	13	9
Metrological Provisions and Examination of Design Work — Yu. A. Matveev and A. V. Tolstousov	15	11
Organizational and Technical Aspects of Metrological Examinations — V. M. Sterzhakov and I. M. Shcherbakov	18	12
Organization and Procedure of Departmental Inspections — A. I. Demidenko and S. D. Reshetnev	20	13
Experience in the Use of New Measuring Devices — V. S. Golubkov and V. D. Pil'puk	22	14
Tasks of Specialized Measuring-Equipment Laboratories — E. L. Perel'shtein	24	15
Improving the Metrological Servicing of Enterprises — R. A. Khoreva, V. N. Pashkin, and V. I. Korolev	26	16
Application of Computers in the Metrological System for Servicing Scientific-Research Institutes — B. S. Dubov and N. M. Kopytin	28	17
Scientific Methods Council for Metrology — Ya. M. Lachugin	32	19
GENERAL PROBLEMS OF METROLOGY AND MEASUREMENT TECHNIQUES		
Method of Checking Automatic Measuring Instruments — A. I. Lisenkov	33	20
The Errors of Differential Balanced Measuring Circuits — I. V. Korablev	38	24
Estimation of the Cross-Correlation and Autocorrelation Functions for the Errors of Certain Measuring Instruments — I. I. Abkevich	43	27
LINEAR AND ANGULAR MEASUREMENTS		
Metrological Provision for Surface Roughness Measurement — V. S. Luk'yanov	47	29
Status and Prospects for the Development of Contact Instruments for Measuring Surface Roughness — V. I. Veretennikov and L. Z. Gishfel'd	52	32
Optical Instruments for Surface Roughness Measurements — A. A. Kuchin	54	33
Reflectometric Methods of Surface Roughness Measurement — K. A. Obradovich and F. M. Solodukho	59	36
Accuracy of Surface Roughness Parameter Determinations — Ya. A. Rudzit	63	38
Computer Research on Surface Roughness — I. V. Egorov, O. K. Komarovskii, and V. S. Luk'yanov	67	40
OPTICOPHYSICAL MEASUREMENTS		
Heterodyne Methods of Laser Interferometry on the Basis of Acoustic Light Modulation — V. I. Teleshevskii	70	42
Precision Measurement of the Thermodynamic Temperature of an Absolutely Black Body — A. F. Kotyuk, L. S. Lovinskii, L. N. Samoilov, and V. I. Sapritskii	75	46

Measurement of the Parameters of Technological Laser Equipment — E. A. Avsievich, V. M. Suminov, and V. A. Yakovlev	77	47
Precision of Linear and Angular Bisecting of Graticules in Sighting and Measuring Telescopes — A. M. Afanas'ev and F. M. Danilevich	80	48
Compensator for Optical Devices — A. V. Morar and A. F. Nesterov	84	51
TIME AND FREQUENCY MEASUREMENTS		
System for the Simultaneous Transmission of Time Signals and Information as to the Current Time along Television Channels — G. N. Palli and Yu. A. Fedorov	85	51
A Combined Gas Cell for a Passive Quantum Frequency Standard Based on Rubidium Vapor — A. Ya. Leikin, B. Yu. Linker, and A. I. Samoilovich	88	53
MECHANICAL MEASUREMENTS		
Analysis of Acoustic Emission Caused by Crack Growth in a Rectangular Plate — Yu. I. Bolotin, V. A. Greshnikov, Yu. B. Drobot, L. A. Maslov, and V. P. Trotsenko ..	90	54
A Two-Component Liquid Flow Speed Transducer — T. V. Arefeva, G. S. Berlin, N. A. Melekhova, and V. V. Tsvetkova	95	57
Dynamic Errors of the Elastic-Contact Method for Calibrating Impact Accelerometers — G. S. Skorik and F. S. Savitskii	98	59
THERMOPHYSICAL MEASUREMENTS		
Measurement of High Steady Temperatures by the Method of Two Thermoreceivers — A. A. Anufriev and S. D. Belyakov	101	61
Thermal Converter's Error Due to Additional Heating of the Thermocouple — I. S. Sviridovskii and V. R. Lopan'	104	63
Film Thermocouples' Calibration Method and Their Characteristics — N. A. Ivanyuk and N. Ya. Tarasova	107	64
MEASUREMENT OF ELECTRICAL AND MAGNETIC QUANTITIES		
Design of Multivalued DC and AC Voltage Standards — O. P. Galakhova, L. N. Egorychev, T. B. Rozhdestvenskaya, and V. I. Fomenko	109	66
A Primary Three-Loop Transducer for Magnetic Parameter Monitoring — Yu. V. Seleznev and G. P. Ryzhkov	113	68
Direction Patterns of Magnetic Transducers — Yu. V. Afanas'ev and A. P. Shchelkin	116	70
Transformer Circuits in Metrology — V. G. Gusev	119	73
Measuring the Secondary Resonances of Quartz Filter Resonators — P. D. Shchebetun, B. V. Sivkov, and N. A. Pashkovskii	122	74
Current Integrator with a Long Time Constant and a Low Integrating Capacitor — Yu. N. Rodionov	125	76
Guaranteed Accuracy in Electrical Measurements — Yu. S. Kuznik	127	77
Parametric Precision Source for a Reference Voltage — G. A. Vizen, S. S. Gromov, and N. V. Nikitin	129	78
Standard Amplifying Cells for DC Measuring Amplifiers — A. V. Tyurev, R. P. Filimonov, and O. S. Okorokova	132	80
A Measuring Antenna with a Memory Device — M. E. Melekhov	134	81
A Frequency-Balancing Method of Phase-Shift Measurement — V. M. Shkol'nik	136	82
PHYSICOCHEMICAL MEASUREMENTS		
Metrological Features of Gas Chromatographs — D. K. Kollerov and V. I. Kalmanovskii	140	85
ASSISTANCE TO MEASUREMENT LABORATORY WORKERS		
Control of Thin Plane-Parallel Plates in the Process of Preparation — V. P. Bardin	145	89
Angle-Measuring Device with an Indicator — M. N. Trubetskoi	147	90
Technique for Checking the Total Error of the Gauge for Measuring Center Distances — A. Ya. Idelevich	149	91
Checking Deviations from Plane-Parallelism of a Fabry-Perot Interferometer by Means of Laser Radiations — N. B. Kolinko and D. A. Solomakha	151	92

Device for Determining the Thyristor Crystal Temperature — V. A. Bun'ko, G. P. Naumov, V. I. Skipa, V. P. Kotlyar, and S. P. Savchenko	153	93
DC Stabilizer Type P-138 for U302 Installations — N. I. Kotel'nikov	155	94
70th Birthday of M. K. Zhokhovskii	156	94

Volume 18, Number 2 February, 1975

The Centenary of the International Metrical Convention	157	3
METROLOGICAL SERVICE		
Improvement of the Metrological Provision for the Economy of Latvia — E. G. Kovatsenko	162	7
Regulation for Enterprises (Organizations) with a High Metrological Efficiency	169	11
A Metrologist is a Highly-Qualified Industrial Expert — R. T. Dzhanuravich	172	12
Metrological Service of the Ministry of Food Industry — V. E. Gudreniks	174	13
Organizing Metrological Inspection in the Ministry of Light Industry — V. N. Filippov	176	14
Metrological Provisions for Wood-Working Enterprises — L. S. Sverdlov	178	15
Testing and Repairs of Measuring Equipment at the Riga Diesel-Manufacturing Plant — N. A. Yakusheva	180	16
Experience Gained by the Metrological Service of the "VÉF" Plant — É. K. Oshis	182	18
Part Played by the Metrological Service in Raising Production Quality at the Riga Electrical Engineering Plant — M. D. Pozdnyak	185	20
Metrological Service in the Riga Car-Building Plant — A. P. Zamyatin	187	21
Organizational Experience and Activity of the Latvian Academy of Sciences Metrological Service — É. A. Rozitis	189	22
The Work of the Metrical Technology Laboratory in a Scientific-Research Institute — V. I. Ozol	192	23
Departmental Metrological Service of the Latvian Energy — Kh. D. Vanags	195	25
Experience in Applying the All-Union State Standards (GOSTs) 8,001-71 and 8,002-71 — V. T. Katemirova	198	26
The Use of Rider Cards for Registering Measuring Agents — V. I. Ozol	200	27
GENERAL PROBLEMS OF METROLOGY AND MEASUREMENT TECHNIQUES		
Metrological Reliability — I. V. Abuladze and S. M. Mandel'shtam	203	29
Attestation and Checking of Measuring Information Systems Based on the Use of a Computer — M. S. Tarshish	206	31
Estimation of the Entropy Error in Multiple-Link Measuring Structures — D. A. Abdullaev and G. N. Makarov	210	33
Determining the Coefficients in the Transfer Function for Linearized Systems from Test Curves Describing the Transient Process — V. F. Baklanov, V. V. Leonov, and G. S. Skorik	213	35
Preliminary Estimation of the Form of the Distribution Function for a Stochastic Process — A. V. Blokhin	217	37
Measurement of a Measuring Transducer Not Rejected after Checking — M. G. Kurepin	219	39
The Unit of Permeability — A. F. Miglyachenko	222	41
LINEAR AND ANGULAR MEASUREMENTS		
Instrument for Comparing Line Standards of Length — N. V. Trishin	223	41
Finding the Dimensions of Components by Means of a Surface (Marking-Out) Plate — S. F. Lyakun	226	43
Systematic Errors in Measuring the Radius of Curvature of Profile Projections and Standard Step-Type Roughness Parameters — G. M. Kharach and L. I. Éksler	229	44
Determination of the Position of the Median Line of the Profile on Surface-Roughness Profile Recording — M. A. Levin	233	46
Measurement of the Amplitude of Angular Oscillations by Means of an Interferometer — V. M. Menchikov	235	48
The Effect of a Probe on a Surface is Investigated — V. N. L'vov and V. I. Savenko	237	49

OPTICOPHYSICAL MEASUREMENTS

Photometric Modulation Method for Measuring the Amplitude of Mechanical Vibrations

— V. I. Domarkas and S. I. Sayauskas 239 50

Improved Light-Ray Oscillograph with a Drum-Type Magazine — V. I. Pluzhnik

and P. A. Parshukov 242 52

A Measuring System for Studying Cross-Over Connections in an Aerial Photoinstallation

— Ya. E. Shcherbakov 244 52

TIME AND FREQUENCY MEASUREMENTS

Short-Term Frequency Instability of the Frequency Synthesizer in an Atomic Clock

— N. I. Ivanov 248 55

Interfacing a Digital Instrument to a Computer — G. I. Belomestnov, A. D. Dmitrienko,

V. F. Korzh, and Yu. P. Khrustalev 252 57

MECHANICAL MEASUREMENTS

Calculation of the Kinematic Error of Mechanisms — T. S. Kovanova, L. E. Filippova,

and M. G. Sharonov 254 58

Determining the Tolerated Nonuniformity of the Flow-Velocity Field in Working Sections

of a Hydrodynamic Testing Equipment — V. A. Kuz'min 258 60

Spectral Signal Width of an Optical Doppler Flow Velocimeter — E. M. Aristov, S. A. Babin,

B. A. Pavlovskii, and S. F. Yuras 263 63

Stability of Strain-Gauge Readout under Alternating Loading — A. S. Radchik, V. V. Ryachev,

and P. M. Timchenko 265 64

THERMOPHYSICAL MEASUREMENTS

An Interference Dilatometer for the Temperature Range 20–1100°C — A. N. Amatuni

and T. I. Malyutina 267 66

Determination of the Analytic Temperature Dependence of the Volume Radiation Density

of Optical Media — A. M. Khorokhorov, V. M. Ponomarev, I. I. Pakhomov,

and A. V. Shikut' 271 68

Standard Quartz Dilatometer for the Temperature Range 20–300°K — A. V. Solodukhin 274 69

MEASUREMENTS OF ELECTRICAL AND MAGNETIC QUANTITIES

Methods of Reducing the Random Error of Nuclear Induction Meters for Strong Magnetic Fields

— D. I. Cheburkov 276 71

Unified Epstein Apparatus — Yu. N. Yaroshenko 280 73

Effective Measurement of the Zero-Relaxation Voltage — E. T. Sharnopol'skaya 282 74

Design of Measuring Transformers — E. S. Polishchuk, M. I. Kofman, and S. I. Yasnitskii 284 75

Calculation of the Threshold of a Regenerative Diode Comparator — B. P. Siluyanov 288 78

The Tuned Circuit of an LC Oscillator as a Transducer — A. A. Kozak 291 79

Universal Nomograms for Measurement of UHF Dielectric Constants of Polar Liquids

— R. M. Kasimov and S. M. Useinova 294 80

Instrument High-Voltage Divider with Metal-Film Resistors — N. I. Fal'kovskii 297 82

PHYSICOCHEMICAL MEASUREMENTS

Preparation and Utilization of Silica Gel for Extended Storage of Measuring Apparatus

— L. A. Leifer and A. I. Farfel' 298 83

Calibration Characteristics of DV-1K Heated Lithium Chloride Humidity Transducers

— B. M. Chetverukhin, A. M. Litvinov, and V. I. Spivakova 301 84

Temperature Compensation in Conductometry — Yu. A. Zyazev and L. N. Stepanov 304 86

A High-Frequency Concentration Meter with a Capacitance Transducer — B. I. Yavorskii,

Ya. V. Buchinskii, and M. A. Duda 307 88

ASSISTANCE FOR MEASUREMENT LABORATORY WORKERS

Problems of Controlling the Speed of Locomotives and Organizing Their Speedometers' Testing

— V. I. Kolosov 309 90

Application of the R56/2 Potentiometer Assembly for Measurements in Heavy-Current Circuits — N. I. Korotkov, S. P. Mokhrinskii, and B. V. Potapov	311	91
Technique and Equipment for Testing-Low-Range DC Microammeters — V. I. Sungurov	314	92
Method of Checking and Calibrating Voltmeters and Measuring Transducers for Pulse-Modulated Oscillations — G. P. Tel'tchenko and A. M. Fedorov	316	93

Volume 18, Number 3 March, 1975

Socialist Pledges of the Workers, Scientists, Engineers, Technicians, and Office Workers of the USSR State Committee of Standards Enterprises and Organizations for 1975, the Final Year of the Ninth Five-Year Plan	319	3
--	-----	---

STATE STANDARDS

Primary State Standard for the pH Unit — N. Yu. Gorina, D. K. Kollerov, and L. P. Piskunova	324	6
---	-----	---

METROLOGICAL SERVICE

State of Measurements and Measures Adopted for Improving Metrological Provisions for the Processing of Oil Products — A. I. Ivlev, L. M. Zaks, S. M. Zatulovskii, and E. A. Zaets	328	8
Evaluating the Reliability of Measuring Equipment in the Course of State Testing — V. A. Linets, V. V. Mardin, and V. D. Mikhailenko	333	11
Development of Measuring Techniques — G. S. Verblivskii	336	13
Integral Index of the Testing Equipment's Efficiency — A. M. Kipnis	339	15
Experience in Organizing Metrological Examination of Technical Documents — E. I. Veprev ..	345	18
Metrological Service in the System for Controlling Production Quality — Ya. I. Kanyavskii ..	347	19
Experience Gained Abroad in Metrological Provisions for Production — Yu. A. Matveev	349	21

GENERAL PROBLEMS OF METROLOGY AND MEASUREMENT TECHNIQUES

Evaluating Errors in Measuring Nonlinear Distortions of a Television Raster by Means of the Moiré Method — G. V. Mamchev	352	23
Error Reduction in Conversion of Analog Quantities to Digitized Time Intervals — V. E. Tyrsa	357	26
Formulas for the Error Tolerances of Resistance Boxes, Potentiometers, and Bridges — L. V. Zanichkovskaya, V. I. Zorii, V. A. Kochan, and K. M. Obelevskaya	361	28
A Pulse-Width Adder — V. P. Dolgin	365	30

LINEAR AND ANGULAR MEASUREMENTS

New Photoelectric Method for Sighting Objectively Scale Graduations — V. M. Sikkarulidze and G. P. Zedginidze	369	33
Measurement of Small Displacements with a Dual-Frequency gas Laser — K. A. Bikmukhametov and V. M. Klement'ev	372	34
Automatic Device for Comparing Polyhedral Prisms — M. G. Boguslavskii, V. Ts. Vol'pert, and V. M. Éliashberg	374	36
Measurement of the Angular Position of the Vibration Plane of Polarized Radiation — A. M. Gorban' and V. F. Maistrenko	377	37

OPTICOPHYSICAL MEASUREMENTS

Checking Spectrophotometers with a Wavelength Range of 0.186-2.5 μ — N. R. Batarchukova and V. N. Galkina	383	41
Method of Studying Nonlinear Optical Conversion in a Proustite Crystal — L. N. Gnatyuk, S. N. Marchenko, and G. I. Rukman	387	43

TIME AND FREQUENCY MEASUREMENTS

Fluctuations in Atomic Clocks — N. I. Ivanov, A. Ya. Leikin, and N. S. Fertik	389	44
Atomic Clocks and the Time Errors of Adjustable Electronic Clocks — A. B. Sadovskii, G. P. Pashev, E. V. Zuev, and A. I. Pikhtev	391	45

MECHANICAL MEASUREMENTS

Calibration of Rotameters and Rheometers — A. N. Pavlovskii	393	47
Transducers for Pressure Change Rate — O. A. Safonov and A. A. Osvetinskii	397	49
The Optimum Parameters of the Interference Devices in the Modulation Method of Measuring Small Oscillation Amplitudes — V. I. Beskhlebnyi, A. N. Bondarenko, V. I. Panin, and V. P. Trotsenko	403	53
Determining the Kinematic Error of Gearing at Different Angular Velocities — L. A. Kudryavtsev, A. N. Sevast'yanenko, A. P. Podtepa, and O. M. Kolchin	408	55

THERMOPHYSICAL MEASUREMENTS

A Precision Two-Stage Thermostat for the Range 30-200°C — D. Yu. Ivanov	411	57
Differential IR Pyrometry of Surface-Heating Nonuniformity — B. P. Kozyrev and D. D. Val'chikhin	413	58
Methods and Apparatus for Calibrating Thin-Film Liquid-Crystal Heat Detectors — P. S. Glazyrin, T. A. Ivanova, and V. Pak	417	61
Thermoelectric Parameters of Single-Crystal Rhenium — B. I. Stadnyk and I. P. Kuritnyk	419	62

MEASUREMENT OF ELECTRICAL AND MAGNETIC QUANTITIES

Equipment for Measuring Standard output Power and Voltages for Precision Signal Generators — E. I. Strelkova and G. P. Telitchenko	422	63
Hall Converters for the Measurement of Strong Magnetic Fields — V. G. Veselago, V. M. Ivanov, V. I. Pogodin, V. I. Tikhonov, and G. A. Yur'eva	424	65
The Accuracy of Measuring the Dielectric Permittivity of Substances with High Conductivity — V. S. Gangnus and A. N. Sus	428	66
Edge Effect when Measuring the Dielectric Constant of Liquids — Yu. V. Podgornyi and L. A. Terletskaia	431	68
A System for Amplitude Measurement of Single Short Pulses — V. V. Polyudov and V. I. Telenkov	434	70
Apparatus for Measuring the Magnetic Susceptibility of Weakly Magnetic Materials — N. V. Kazitsyn, A. T. Lysak, P. N. Shershakov, P. A. Shurupov, and Y. A. Yurkov	437	72
Precision AC Repeaters — M. S. Roitman	439	72
Aging of Precision Quartz Resonators — O. N. Efremov, L. A. Lyubimov, Z. I. Fomicheva, V. Shin, and M. I. Yaroslavskii	442	74

MEASUREMENTS OF IONIZING RADIATIONS

A Method of Transferring the Size of the Unit of Absorbed Dose Intensity from the State Primary Standard to a Standard Facility for Measuring the Absorbed Dose of Gamma Radiation from ⁶⁰ Co in Muscle Tissue — Yu. I. Bregadze, N. I. Muratov, and A. V. Tultaev	444	75
Error in Measuring the Energy of α Particles in a Semiconductor Spectrometer — É. K. Stepanov	447	77
Investigation of the Stabilizing Factor of a Discrete-Integration Method of Recording Radiation in Scintillation Radioisotope Instruments — V. G. Balashov and A. M. Bogachev	451	79

PHYSICO-CHEMICAL MEASUREMENTS

Calibration of a Photoelectric Aerosol Jet Counter of the AZ Type — A. A. Kirsh and V. A. Dvukhimennyi	456	82
A Nomogram for Calculating Water Contents — V. E. Melkumyan	459	84
Tin Tetraiodide Used for the Adjustment and Checking of Mass Spectrometers — O. R. Savin, É. I. Vaisberg, V. N. Dolya, V. V. Zakharchenko, and N. A. Koval'	460	85
A Hybrid Spectrum Analyzer — V. I. Babenko and V. I. Chaikovskii	463	86

ASSISTANCE FOR MEASUREMENT LABORATORY WORKERS

Equipment for Testing Information-Measuring Systems' Transducers — Yu. N. Zaitsev, V. I. Knonvalov, and N. Yu. Lutsyk	466	88
Accessory for Testing Electric Timers — E. V. Novikov	468	89
Current Collector for Vertical Shafts — Yu. P. Shvirin	470	90

Some Features of the Calibration of Magnesium Alloy-Constantan Thermocouples - V. G. Dunyashev and I. P. Koziryatskii	472	91
Device for Measuring Pulse Repetition Period - I. S. Zholkina and V. I. Chernyshev	473	92
Nomographic Device for Determining Small Nonlinear Distortion Coefficients during Testing of Low-Frequency Signal Generators - G. L. Sigal	475	93
Type B1-7 and B1-10 Improved DC Power Supplies - N. I. Kotelnikov	477	94

Volume 18, Number 4 April, 1975

100 YEARS OF THE INTERNATIONAL METRIC CONVENTION		
Metrology and Scientific Progress - V. V. Boltsov	479	3
International Bureau of Weights and Measures. Traditional and Contemporary Aspects - B. M. Isaev	485	7
The Development of Soviet Metrology on the Basis of the Metric System - V. I. Kiparenko ...	490	10
Metric Convention and Metrological Service in the USSR at the Present Stage - V. V. Sychev, L. M. Zaks, V. V. Popov, V. S. Agamirova, and N. P. Mif	495	13
International Metrological Activity. Aims and Problems - V. I. Ermakov	499	16
Development of the International System of Units - K. P. Shirokov	504	19
The Role of Physical Constants in the Development of Methods of Reproducing Units of Physical Quantities - S. V. Gorbatshevich	510	23
International Collaborations for Ensuring Uniform Linear Measurements - L. K. Kayak	513	25
International Cooperation in the Field of Exact Time and Frequency Measurements - D. Yu. Belotserkovskii, V. G. Il'in, and I. V. Stepanova	517	28
International Unity in the Field of Temperature Measurements - B. N. Oleinik and V. V. Kandyba	520	30
International Standardization of Thermal Measurements - O. A. Sergeev, B. N. Oleinik, and V. V. Kandyba	524	32
International Advances in the Metrology of Electrical Measurements - T. V. Rozhdestvenskaya .	527	34
The Main Achievements and Prospects in Developing a Metrological Provision for Measuring Microwave Power - A. I. Mekhannikov, V. D. Frumkin, and V. G. Chuiko	532	37
International Work on the Metrology of Ionizing Radiation - M. F. Yudin and Yu. I. Bregadze ..	535	39
Standard Specimens in the System of Metrological Provisions for Measuring the Composition and Properties of Substances and Materials - N. G. Semenko	538	41
STATE STANDARDS		
Special State Standard for the Unit of Pressure in the Absolute Range 10^{-3} to 10^3 Pa - A. V. Eryukhin	541	43
State Primary Standard of the Solid Bodies' Specific Heat in the Range of 273.15 to 700°K - I. M. Frenkel' and O. A. Sergeev	545	45
Primary State Standard for the Thermal-Conductivity Unit of Solids between 90 and 500°K - D. A. Tatarashvili, O. A. Sergeev, and Yu. A. Chistyakov	552	49
Special State Standard for the Unit of AC Power in Coaxial Channels at High Frequencies - A. M. Fedorov, A. V. Grigor'ev, V. I. Krzhimovskii, T. B. Morozova, and I. A. Sergeev	556	51
Special State Standard for a Unit Phase Difference Angle between Two Voltages at 1000 Hz - E. D. Koltik, S. A. Kravchenko, V. E. Novoderezhkin	560	54
GENERAL PROBLEMS OF METROLOGY AND MEASUREMENT TECHNIQUES		
Sensitivity Limit of Unbalanced and Automatically Balanced Measuring Circuits - I. V. Korablev and M. V. Kulakov	563	57
Method of Correcting the Output Signal of Measuring Instruments - A. V. Andriyanov and V. V. Krylov	567	59
Standardized Antimodal Density Distributions - R. V. Fel'dman	571	61

LINEAR AND ANGULAR MEASUREMENTS

Measuring the Gap between the Piston and Cylinder of an Engine by Means of an Electron Beam — V. D. Karataev, F. F. Machul'skii, I. V. Riskin, V. N. Rudenko, and É. P. Ten	574	63
Application of Toothed Discs for Precision Angular Measurements — G. B. Lazenais, B. B. Krivchenok, Yu. Yu. Mikuckis, and V. A. Shlyumba	577	64
A Primary Interference Device for Converting Rotational Angles Based on a Plane-Parallel Plate — I. M. Kol'tsov, V. L. Mamaev, L. A. Markova, V. P. Mikheev, and B. S. Rozov	579	65

MASS MEASUREMENTS

Metrological Servicing and Precision in Batch Production of Balances — G. F. Malikov	581	67
--	-----	----

MECHANICAL MEASUREMENTS

Influence Function of Utilization Conditions of Systems for Precise Reproduction and Measurement of Liquid Flows — B. V. Biryukov, M. A. Danilov, and S. S. Kivills	586	69
An Apparatus for Calibrating Magnetic Flowmeters in Testbed Loops — V. B. Davydov, V. D. Gordeev, Yu. S. Lepanov, and L. N. Kalenov	591	72
General-Purpose Instrument for Measuring and Recording the Starting and Friction Torques of Ball Bearings — A. L. Tsiber and V. A. Yambikov	594	73
Fast Digital Speed Difference Meter — B. A. Furman and A. G. Lichman	597	75

MEASUREMENT OF ELECTRICAL AND MAGNETIC QUANTITIES

The Use of the Kerr Magneto-optical Effect to Investigate Alternating Magnetization in Microvolumes — S. F. Glagolev	601	78
Modification of the Short-Circuit and Open-Circuit Method of Measuring the Parameters of Materials — P. A. Ivashchenko and V. M. Sokolov	604	79
Formula for Determining the Permissible Error Limits of Discrete Voltage Dividers — V. V. Dubrovskii, V. M. Terekhov, G. P. Shlykov, and V. M. Shlyandin	606	81
Low-Frequency Phase Meter with Input Frequency Conversion — N. P. Zimin and A. F. Yanenko	608	82
Audio-Frequency Oscillator with High Internal Resistance — B. A. Kuznetsov and V. F. Sen'ko	612	84

PHYSICO-CHEMICAL MEASUREMENTS

Codependence of Ways and Means of Measuring the Chemical Composition of Solids — Yu. L. Pliner and A. B. Shaevich	615	85
Effect of the Nonlinearity of the Moisture Characteristics of the Substance under Test on the Error of a Moisture Meter — V. I. Muzalevskii	618	87

ASSISTANCE FOR MEASUREMENT LABORATORY WORKERS

A Simple Highly Efficient Method for Measuring the Deviations of Resistances — N. N. Glukhov	621	89
A Digital Frequency-Deviation Meter for FM Oscillators — M. L. Gaponov	624	91

INFORMATION

Sixth Session of the COMECON Standardization Permanent Commission's Metrological Section — V. I. Kozlov, and P. N. Selivanov	626	92
Progress in Fulfilling the Planned Work of the Scientific and Production Association "Interetalonpribor" — V. N. Yumatov	628	93
Necrology of Yakov Mikhailovich Sorin	630	94

Volume 18, Number 5 May, 1975

50th Anniversary of Standardization in the USSR. From the USSR State Committee of Standards (Gosstandart).	631	3
--	-----	---

Appeal Issued by the Principal Standardization Organization of the USSR Ministry of the Communication Means Industry to the Principal Standardization Organizations of Various Industries in Connection with the 50th Anniversary of Standardization in the USSR	633	4
METROLOGICAL SERVICE		
Basic Tendencies in the State Metrological Service Activity in the Concluding Year of the Ninth Five-Year Plan — A. I. Ivlev, V. I. Vinnik, and V. I. Sashnikov	635	5
Draft State Standard on "Metrological Supervision of Measuring Equipment. Organization and Procedure." — V. V. Popov, and V. L. Chapaikin	641	8
Metrological Support Problems of Automatic Control Systems for Production Processes — É. S. Brailov, A. L. Semenyuk, and A. V. Khramov	644	10
Examination of Design and Technological Documents — M. I. Ryvkin	647	12
Metrological Provisions for Nondestructive Testing — E. L. Perel'shtein	649	12
Metrology in the Foodstuffs Quality Control System — É. S. Fedyaeva	652	14
Determining the Standard of Metrological Provisions for Production — V. I. Gusev and V. A. Patrchnyi	654	15
GENERAL PROBLEMS OF METROLOGY AND MEASUREMENT TECHNIQUES		
Technique for Evaluating the Condition of Measuring Equipment — V. M. Kriksunov and Ya. A. Krimshstein	657	17
Definition of Quantitative Performance Parameters for Analog Measuring Systems — I. V. Kulikov	661	19
An Associative Method of Code-Mask Readout — A. G. Mol'nar	663	20
Classification of Errors by the Form of Their Law of Distribution — I. U. Alekseeva, R. I. Korol', P. V. Novitskii, and L. V. Smolko	668	23
LINEAR AND ANGULAR MEASUREMENTS		
Principles of Classification and Terminology in the Sphere of Linear and Angular Measurements — E. P. Ancuhin and L. K. Kayak	670	24
New Micrometers and Snap Gauges with Gear and Lever Reading Devices — S. K. Lisin, S. B. Tarasov, and Yu. Z. Tenenbaum	674	27
Testing Instruments Used for Monitoring Linear Dimensions under Conditions of Vibration — Yu. S. Mironov	677	29
Standard Measures of Surface Density for Testing and Calibrating Radioisotope Thickness Gages — N. I. Karmalitsyn and Z. A. Tutane	680	30
OPTICOPHYSICAL MEASUREMENTS		
System for Transmitting the Dimensions of Refractive-Index Unit — V. E. Buslaeva, E. A. Volkova, and L. V. Nalbandov	682	31
An Apparatus with an Automatic System for Measuring the Spectral Sensitivity and Linearity of Primary-Standard Radiation Measuring Transducers — A. F. Kotyuk, L. S. Lovinskii, L. N. Samoilov, and V. I. Sapritskii	685	33
A Fabry-Perot Etalon for the Middle Infrared Part of the Spectrum — A. S. Naidenov	688	35
MECHANICAL MEASUREMENTS		
Supervision of Testing Technology — A. M. Kipnis	690	36
Methods of Controlling the Basic Characteristics of Vibration Benches in the Process of Using Them — A. E. Manokhin	692	37
Measurements and Information Processing in Studying Vibration Racks — E. P. Korytko	695	39
Automatic Determination of the Electromagnetic Vibration-Testing Racks' Precision Characteristics — A. E. Manokhin and V. I. Bolotov	698	40
Application of Short and Open Circuit Characteristics for Designing and Investigating Electrodynamic Vibration Racks — G. M. Pushkarev	703	43
Establishing Experimentally Relationships between Parameters Measured at Different Instants — G. D. Kartashov	707	45

Replacement of Shock Tests by Linear Overload Tests — G. M. Pushkarev, A. I. Rettel', and N. K. Goretskaya	710	47
Algorithms for the Operation of a Digital System for Controlling Vibration Tests — A. A. Tunik, N. K. Brovdi, V. M. Movsesyan, B. Yu. Mandrovskii-Sokolov, and V. N. Poida	712	48
Computerized System for the Control of Random Vibrations — A. G. Getmanov, A. G. Dirkov, M. I. Shaposhnikova, A. A. Savkin, and Yu. B. Palagina	716	50
The Organization of Tests on the Effect of Climatic Factors — A. A. Petrovskii and A. A. Esyutin	719	52
Use of Laser Equipment to Detect Mechanical Resonances and to Stabilize Vibration Parameters at a Specified Value — V. G. Rygalin, D. A. Grechinskii, and A. B. Sobolev ..	722	54
MEASUREMENT OF ELECTRICAL AND MAGNETIC QUANTITIES		
Study of the Magnetic Susceptibility of Thin Magnetic Films in Radiospectrometers of the Nonresonance Type — G. A. Vedyushkin and A. F. Kugaevskii	724	56
An Automatic High-Sensitivity Magnetometer for Studying Magnetic Materials — V. N. Saunin, G. P. Zhilin, and D. A. Laptel'	728	58
Low-Frequency Differential Magnetometer — M. V. Semenov	730	59
Type ÉM2-15 Vibration Magnetometer for Measuring the Magnetic Saturation Moment of Ferromagnetic Specimens — G. S. Kuskov and V. G. Antonov	734	61
Coercive-Force Measurements on Specimens of New High-Coercive-Force Materials with Hall Transducers — E. S. Lobyntsev	737	63
Measurement of the Field Intensity in the Operating Gap of a Magnet Head — L. S. Palatnik, L. Z. Lubyany, and L. I. Lukashenko	739	64
Application of the Method of Double Integration to Measure the Quantity of Paramagnetic Centers — V. N. Zinchenko	741	65
The Error Introduced by Asymmetry of the Antenna-Feeder Channel when Measuring Transmitted Power — L. M. Moldavskii	743	66
Linear Capacitance-Frequency Converter — B. Ya. Likhitsinder, A. S. Bryatov, Yu. A. Intsin, and V. V. Koronik	745	67
Effects of Interacting Circuits on a Phase Shifter — L. P. Gel'd and V. E. Zinov'ev	749	69
IONIZING RADIATION MEASUREMENT		
Standardization of Portable Radiation Monitors — A. V. Davydov, A. M. Guseinov, and N. N. Emel'yanov	751	71
Geometry Effect of a Collimating Channel on Dose Exposure — I. I. Dol', G. K. Paramonov, and V. N. Tushin	755	73
Estimation of the Errors in Determining the Uptake of Radioactive Isotopes in the Respiratory Organs — S. O. Lekhtmakher and L. S. Ruzer	758	75
PHYSICOCHEMICAL MEASUREMENTS		
Equivalent Electric Circuit of a Primary Capacitive Humidity Converter with Insulated Electrodes — T. D. Dzharidze, R. N. Meskhidze, and V. E. Pruidze	761	77
Wetting of Aspiration Psychrometers in Hygrostat Chambers — M. Ya. Brodskaya and E. A. Gershkovich	764	78
DC Amplifier with Photoelectron Modulator — V. N. Avdeev, É. G. Vartazarov, and V. D. Martirosov	766	79
BIOLOGICAL AND MEDICAL MEASUREMENTS		
Metrological Aspects of Automating Clinical Biochemistry — B. M. Kotenev	769	81
Errors in Conductometric Blood Cell Counting — A. I. Bryskin and V. B. Parashin	771	83
A Digital Integrating Microphotometer for Examining Microscopic Biological Specimens — B. L. Pereverzev, S. A. Varga, and S. I. Kononov	775	85
ASSISTANCE TO MEASUREMENT LABORATORY WORKERS		
A Plant Chamber for Determining the Noise Characteristics of Conditioners — S. N. Kuznetsov and S. I. Tret'yakova	777	86

Determination of the Heating Point of Current Transformer Windings in Electrothermic Stability Testing — Yu. A. Fominykh, V. P. Pologov, and A. V. Skurikhin	782	89
An Apparatus for Measuring the Dielectric Constant of Sheet Dielectrics in the Three-Centimeter Band of Radio Waves — Yu. S. Galanina, L. A. Mukharev, and V. A. Nikolayev	784	90
Paper and Wood Pulp Hygrometers — V. N. Nevleva	786	91
Obtaining Time Intervals for Checking Stopwatches — V. I. Kalendarov and R. P. Streletskii ..	788	92
The Use of a Helmholtz Coil for Checking Instruments for the Influence of Magnetic Fields — O. G. Lyakhovets, A. M. Soloshenko, and L. A. Sinel'nikova	789	93
Checking of Radiation Sources for Gamma Flaw Detectors — L. A. Pontus and Z. S. Nikiforova ..	790	93

Volume 18; Number 6 June, 1975

METROLOGICAL SERVICE

50th Anniversary of Standardization in the USSR. All-Union Scientific-Research Conference on "Metrological Provisions for Our National Economy" — A. L. Ivlev and L. M. Zaks ..	793	3
Inter-Relation between Measurement Error and the Technical and Economic Indicators of Production — N. P. Mif and B. A. Sapronov	797	5
Official Tests — a Basis for Improving the Quality of Manufactured Products — V. V. Mardin, V. D. Mikhailenko, and M. Kh. Shliomovich	801	7
Fully Equipped Checking Laboratories — L. M. Zaks and S. B. Orlov	803	8
Departmental Testers and Their Role in Metrological Provisions for Production — L. N. Kryuchkov, R. M. Akopov, and N. A. Zhagora	805	9

REFERENCE TO OUR PUBLICATIONS

Technique and Practice in Determining the Economic Efficiency of Departmental Metrological Services — K. L. Abadzhil	807	10
--	-----	----

GENERAL PROBLEMS OF METROLOGY AND MEASUREMENT TECHNIQUES

Optimization of the Accuracy Relationships When Testing Measuring Devices — K. A. Reznik	810	12
Error Bounds for the Determination of the Transfer Functions of Linearized Systems — V. V. Leonov	814	14

LINEAR AND ANGULAR MEASUREMENTS

Application of Computers in Linear and Angular Measurements — N. N. Markov	817	16
A Laser Interference Thickness Gage — V. S. Bukreev, G. N. Zhizhin, V. A. Yakovlev, and I. A. Chudnovskii	821	18
New Parameter for Evaluating the Step of the Profile's Predominant Harmonic — T. S. Lopovok and D. S. Martirosov	824	20
Investigation of the Rotating Transducers' Dynamic Operating Conditions — M. F. Zaripov and M. A. Urakseev	826	21
A Lens Compensator for Testing Autocollimators — V. D. Lizunov, N. F. Sekushenko, M. S. Zil'berman, and V. V. Kopytov	829	23

MECHANICAL MEASUREMENTS

Polynomial Approximation in the Measurement of Transient Processes — B. A. Glagovskii ...	832	24
Digital Fluid Flow Converter — B. P. Kasich, V. R. Toloknovskii, and Yu. I. Zayanchkovskii ..	835	26
Experimental Investigations of a Chemotron Fluid Flow Rate Meter — L. K. Fomin	838	28

THERMOPHYSICAL MEASUREMENTS

An Apparatus for Measuring Compositely the Thermophysical Parameters of Solid Thermal Insulators over the Temperature Range from -50 to +700°C — D. V. Buachidze, K. G. Partskhaladze, N. I. Manvelishvili, and L. V. Darakhvelidze	841	30
Quadrupole Modelling of Compound Resistance Thermometers — L. S. Elefnikova	845	32

A Copper-Copel Thermocouple for Measuring Low Temperatures - V. M. Beilin, G. B. Lapp, B. P. Pavlov, G. N. Pokrovskaya, I. L. Rogel'berg, and Yu. D. Tyurin	850	35
An Electrical Thermometer - D. V. Mishchenko	852	36
MEASUREMENTS OF ELECTRICAL AND MAGNETIC QUANTITIES		
Apparatus for Measuring the Spectral Distribution of $1/f^\alpha$ Noise of p-n-p and n-p-n Transistors in the 20 Hz-30 kHz Frequency Band - L. Ya. Frenkel'	854	37
Measurement of the Spectral Density of Noise Power with a Selective Voltmeter - V. I. Ryumshin	858	39
Protection of the Null Indicator from Leakage Currents in Voltage Comparison Circuits - V. G. Boichuk and N. I. Gorelikov	860	40
Measurement of the Barrier Capacitance of Semiconductor Diodes Using a Resistance- Capacitance Divider - V. S. Blagoveshchenski	866	44
Some Methods for Automatic Gain Control - V. A. Trachenko and V. N. Timonteev	868	44
Increasing the Accuracy of AC Self-Balancing Potentiometers with Respect to One Variable - E. A. Veraksich and V. D. Grinets	870	46
Linear Rectifier for Small Signals - A. K. Ovsienko, Yu. G. Kachan, and M. A. Kovalenko ...	873	48
PHYSICOCHEMICAL MEASUREMENTS		
Metrological Support of Industrial Gas Analysis: Current State and Prospects - V. I. Vinnik, D. O. Gorelik, D. K. Kollerov, A. P. Rudnev, and Yu. V. Tarbeev	875	49
The Role of Standards, Test Schemes, and Standard Specimens in Analytical Testing - D. K. Kollerov	878	50
Mole Concentration - the Basis for Expressing the Quantitative Composition of Standard Gas Mixtures - B. Ya. Gornshtein	882	53
Reference Apparatus for Reproducing the Unit of Gas Mole Concentration - D. O. Gorelik, B. Ya. Gornshtein, and D. K. Kollerov	887	56
Pure Gases for Standard Gas Mixtures - L. I. Gryazina and D. L. Orshanski	890	58
The Problem of Attesting the Purity of Gases Intended for Metrological Purposes - B. Ya. Gornshtein	895	61
Errors in Chromatographic Certification of High-Purity Gases - A. V. Bobylev	899	63
Standard Gas Mixtures - K. N. Volnov, L. I. Gryazina, G. R. Nezhikhovskii, and B. K. Sokolov	904	67
General Requirements for Standard Agents for Attesting Checking Gas Mixtures - S. G. Agranovskii and L. A. Konopel'ko	906	68
Means for Preparing Test Gas Mixtures and Testing Gas Analyzers - D. K. Kollerov	908	69
Monitoring Moisture Content in the Production of Check Gas Mixtures - E. A. Gershkovich, and L. I. Gryazina	912	72
Characteristics of Metrological Provisions for the Gas-Analytical Monitoring of Atmospheric Contamination - N. Sh. Vol'berg, E. A. Gershkovich, and L. A. Konopel'ko	917	75
Analysis of Microconcentration Gas Analysers' Errors Due to Sorption - M. D. Simulik	921	77
Selecting Optimal Methods and Means for Testing Gas-Analyzing Equipment Used in Mining - L. A. Konopel'ko, A. B. Grinberg, and D. O. Gorelik	925	79
Metrological Procedures for Testing the Toxicity of Automobile Exhaust Gases - L. A. Konopel'ko, D. O. Gorelik, and G. N. Sharonov	928	81
The Problem of Storage of Pure Gases and Reference Gas Mixtures - L. I. Gryazina, D. L. Orshanski, E. R. Sheinina, and N. F. Yablonskaya	931	82
Training of State and Departmental Testers in the Field of Gas-Analytical Measurements - V. I. Solov'ev	936	85
ASSISTANCE TO MEASUREMENT LABORATORY WORKERS		
Device for Setting Block Gauges in Testing Micrometers - A. P. Vasil'ev	937	86
Recommendations on Selecting Balances for Checking Weights - N. A. Smimova, G. A. Smimova, and M. I. Tyutikova	938	86
Current Stabiliser for Thermal Diodes - M. Ya. Shor	941	88

Measuring Resistances Exceeding 1 M Ω on DC Bridges Types MTV and R329 - V. A. Kochan, L. V. Zanchikovskaya, and V. V. Kochan	942	88
---	-----	----

INFORMATION

50TH Anniversary of Standardization in the USSR. Exhibition Entitled System of "Technological Preparations Production" - S. S. Babaev, I. V. Bergman, and F. S. Pinski	943	89
Exhibition Entitled "Centenary of the Metric Convention" - Yu. P. Uspenski	947	91
Conference of the "Interetalonpribor" Association's Experts - A. V. Mikhailov	950	93

Volume 18 Number 7 July, 1975

STATE STANDARDS

The State Primary Standard for the Amplitude-Modulation Unit - V. A. Belikov, P. A. Shpan'on, B. G. Seredenko, Z. Sh. Deich, V. S. Klimashevskii, and A. M. Nazarenko	953	3
---	-----	---

THE METROLOGICAL SERVICE

Metrological Support in Producing Measuring Instruments - Yu. Ya. Bazilevskii and A. I. Ivlev ..	957	6
Metrological Support for Electrical Measurement Techniques - M. S. Veksler, M. S. Shkebarnaya, and E. I. Tsvetkov	960	8
The Role of Automatic Information and Control Systems in the Organization and Control of Our Country's Metrological Service - B. R. Kiselev and É. É. Zul'fugarzade	964	11
Analysing the Condition of Measurements at the Soyuztochmashpribor Enterprises - Yu. M. Dubrovin	968	13
Metrological Provisions Program for the Production of Gas Analyzers and Chromatographs - E. A. Zaets and P. S. Kabanov	971	14
Metrological Flowmeter Aggregate - M. Ya. Gammerman and M. A. Danilov	974	16

GENERAL PROBLEMS OF METROLOGY AND MEASUREMENT TECHNIQUES

Method for Designing Precision Transducers of Nonelectrical Quantities to Frequency - É. É. Arnol'd	976	18
Representing Statistically the Operating Condition's Evolution of a Transducer with a Frequency Output - A. A. Abgaryan and M. I. Kiselev	982	21
Method for Determining Experimentally Errors of Inphase Scaling Instrument Amplifiers - I. B. Stanchev, D. A. Samokovliiski, and S. G. Aleksieva	986	24
Selecting an Optimal Range for Measuring Stationary Random Processes - I. Shtefka	989	26
Computer Analysis of the Statistical Errors of Discrete Voltage Dividers - N. T. Abdullaev and M. G. Markatun	992	27
Barkhausen Noise Spectrum in Magnetometric Probe Transducers - L. I. Slabkii	996	30

LINEAR AND ANGULAR MEASUREMENTS

Guaranteeing the Uniqueness of Thickness Measurements for Thin Coatings - A. I. Sergeeva and N. F. Sekushenko	998	31
An Electronic Control for the PL-20 Tape Punch - P. P. Alekseev, N. V. Trishin, and O. V. Yachmentsev	1001	32
Instrument with Needle Gages (Patterns) for Measuring Profile Deviations of Complex-Shaped Objects - B. E. Kostich	1004	34
Laser Diffraction Systems for Measuring Small Objects - M. N. Lodi and E. P. Osmolovskaya ..	1006	35
Integrating Switching Converters - A. A. Boltianskii, M. G. Tolstonogova, and A. A. Kondorov ..	1009	37
Accuracy of a Pneumatic System of Angular Division - R. S. Semezhavichyus, Yu. Z. Selyukov, and A. A. Ramonis	1012	39

OPTICOPHYSICAL MEASUREMENTS

Characteristics of Optical Elements (Parts) in the Near Infrared — a Holographic Study — L. N. Gnaryuk, M. L. Gurari, I. I. Lushchikov, S. N. Marchenko, R. V. Ryabova, and S. P. Tolpina	1014	40
Determination of Voltage Divider Nonlinearity in IKT-1M Laser Radiation Energy Meters — G. V. Burov and Yu. M. Grishin	1018	42
Applications of X-Ray Interferometry in Metrology — N. O. Krylova	1020	44
Simplified Determination of the Pulse Sensitivity of Photoreceivers — A. Ya. Gliberman, É. M. Kaprielyan, A. M. Molodyk, and I. M. Yakovlev	1023	46

MEASUREMENTS OF TIME AND FREQUENCY

Autonomous Determination of the Rate of Propagation of Very Long Radio Waves from Relative Phase Measurements — M. V. Bolotnikov, L. N. Kuryшева, N. A. Tel'pukhovskii, and A. G. Polyak	1026	47
--	------	----

MECHANICAL MEASUREMENTS

Vessel Capacity Measurement with Liquid Flowmeters — A. N. Pavlovskii	1030	49
Pressure Measurement with FKM Strain Gauges — I. S. Nagorskii, Yu. N. Bel'delko, and L. F. Khanko	1034	52
A Tachometer Based on the Barkhausen Effect — A. K. Dolbeshchenkov, G. V. Lomaev, and Yu. M. Merzlyakov	1037	54
Torque Analysis of Tubular Torsion Springs — P. I. Begun	1039	55
Eliminating the Effect of Density on the Readings of Vibrational Viscometers — R. E. Sarkisyan	1041	56

THERMOPHYSICAL MEASUREMENTS

A Magnetic Study of Discrepancies between the International Practical Temperature Scale of 1968 and the Thermodynamic Scale at Hydrogen Temperatures — V. A. Pavlov, V. T. Shkraba, R. V. Filonchik, and D. N. Astrov	1043	57
Basic Metrological Characteristics of a Crystal-Frequency Thermometer — A. G. Smagin and B. G. Mil'shtein	1047	60
Determining the Spectral Sensitivity of Radiation Receivers — I. I. Dolgikh	1050	62
Higher-Accuracy Measuring Instruments with Rotating Thermoreceivers — O. N. Rudnev and V. G. Lebedev	1053	63

MEASUREMENTS OF ELECTRICAL AND MAGNETIC QUANTITIES

Indication Error of Nuclear Magnetic Resonance (NMR) Signal of Autodyne Teslameters — D. I. Cheburkov	1056	65
Analysis of a Compensation Method of Measuring the Modulus of the Reflection Coefficient — L. S. Goldobina, A. M. Rasin, and Yu. P. Kolmakov	1060	67
Analysis of a High-Q Cutoff Resonator — V. D. Bobryshev, V. F. Kravchenko, and S. N. Karetnikov	1065	70
Variation in the Electrical Resistance of Soldered Joints — A. G. Shelepaev	1068	72
A Quadruple-Strip Epstein Apparatus — Yu. N. Yaroshenko	1070	73

ACOUSTICAL MEASUREMENTS

Hydrophone Calibration in a Chamber with Active-Impedance Termination — N. N. Dmitrevskii, L. E. Pavlov, and S. V. Sil'vestrov	1072	74
Measurement of Acoustic Reflectivity of Sounding Pipes Using a Unidirectional Reception System — A. E. Vovk, S. P. Klimov, and V. V. Tyutekin	1075	76
Phase Method of Measuring Low-Standing Wave Ratios — A. N. Rivin	1078	77

IONIZING RADIATION MEASUREMENTS

Evaluating the Fast Neutrons' Quality Factor by Means of the Rossi Counter — Yu. I. Bregadze and P. F. Maslyayev	1080	79
Reproduction of the RAD Unit in the Long-Wave X-Ray Radiation Range by Means of a Liquid Ionization Chamber — A. V. Frolova and V. G. Kolotilova	1084	82

PHYSICOCHEMICAL MEASUREMENTS

Device for Automatic Compensation of Viscosity - N. N. Barabanov and V. A. Serebrennikov ..	1087	84
Vibrational Gas Densimeters - I. A. Panin	1090	86

ASSISTANCE TO MEASUREMENT LABORATORY WORKERS

Raising the Precision in Testing Gauges - P. K. Biserov	1093	88
Type G5-15 Pulse Generator's Attachment for Testing Oscillographs - N. A. Egorov and S. T. Zabezhinskaya	1095	89
Methods of Checking High-Accuracy Resistance Measures and Instruments by Means of a R355 Potentiometer - V. I. Sungurov	1097	90

USSR GOSSTANDART

Items in the All-Union Socialist Competition for Enterprises and Organizations of the USSR Gosstandart for the First Quarter of 1975	1100	92
---	------	----

PERSONNEL TRAINING

Purpose-Oriented Postgraduate Study—an Important Element in the Training of Scientific Personnel - N. I. Anisimov	1102	93
--	------	----

Volume 18, Number 8 August, 1975

STATE STANDARDS

Special State Standard for Units of Acceleration during Impact - V. S. Pellinets, I. S. Baber, N. N. Kovanina, M. M. Lupinski, and M. K. Marchenko	1105	3
---	------	---

METROLOGICAL SERVICE

50 Years of Standardization in the USSR	1110	6
---	------	---

METROLOGICAL PROVISIONS FOR INSTRUMENT MAKING

Future Development of Instrument Making and Its Role in the Metrological Provision by the National Economy - Yu. Ya. Basilevskii	1115	9
Technical and Methodic Guidance of Metrological Provisions in Instrument Making - S. G. Yakovlev and M. A. Golovashkin	1119	12
Working Experience of a Basic Organization - Yu. V. Tsepkanov	1122	14
Planning Metrological Provisions for the Development of Measuring Equipment - G. S. Verblovskii	1124	14
Polynomial Error and Determination of the Measuring Equipment's Normalizing Metrological Characteristics - S. S. Obozovskii	1126	16
Normalizing the Metrological Characteristics of Digital Power Meters - M. M. Rabeshko, S. S. Obozovskii, and O. I. Chaikovskii	1129	17
Adaptive Algorithm for Determining the Metrological Characteristics of Measuring Devices - N. I. Gribok and R. A. Tkachenko	1131	18
Improvements to the Method and Apparatus Used for Checking Resistance Thermometers and Making Exact Temperature Measurements - E. I. Shmorgun	1133	19

METROLOGICAL PROVISIONS FOR AGRICULTURE

State of Measurements and of Metrological Provisions for the Cultivation, Storage, and Processing of Grain, Pulse, and Groat Crops - V. V. Chubarov	1135	20
Tasks of the Departmental Metrological Service of the Republican Association "Moldsel'khoztekhnika" - P. I. Golubev	1138	21
Metrological Provisions for Measuring the Moisture Content of Solid Substances and Materials - V. G. Romanov and V. V. Pushkarev	1140	22
Measurement of Low Air Flow Velocities in the Agricultural Industry - A. G. Zaslavskii, M. A. Kaganov, and I. G. Mushkin	1142	23
Automated Measurements of Thermal and Water Balance Elements - Yu. E. Girshovich, M. A. Kaganov, I. G. Mushkin, Yu. A. Peschanskii, and M. H. Yakker	1144	25

GENERAL PROBLEMS OF METROLOGY AND MEASUREMENT TECHNIQUES

Use of Probability Characteristics of Control Results—N. N. Vostroknutov, V. M. Keshlakov, and S. L. Luchkin	1147	27
Single Mathematical Model for the Laws of Distribution of Errors—P. V. Novitski and I. U. Alekseeva	1151	29
Selection of the Precision Correlation Factor in Checking the Measuring Devices and Correcting Their Readings—K. A. Reznik	1153	30
Optimum Operating Conditions for Unbalanced and Automatically Balanced Measuring Circuits—I. V. Korablev and M. V. Kulakov	1156	32
Computer Errors in Rounding off Products Dynamically—V. A. Popov and V. K. Palagin	1161	35
Metrological Characteristics of Nondestructive Testing Instruments (Discussion)—I. G. Leonov, S. G. Marinov, and E. I. Seregin	1165	37
Estimating the Accuracy of Measuring the Diffusion Constants of a Gas in a Solid—R. I. Van'kovich and I. V. Semchishin	1168	39

LINEAR AND ANGULAR MEASUREMENTS

Investigating the Microgeometry of the Block Gauges' Working Surfaces—F. M. Solodukho	1171	41
Measurement and Automated Monitoring of Small Apertures—B. Ya. Rubenchik	1174	42
Instruments for Testing Indexing Discs—G. N. Ostrovskii, M. I. Dulov, and V. G. Gushchin	1177	44
Causes of Vibrations in Pneumatic Measuring Instruments—L. A. Pronin	1179	46

OPTICOPHYSICAL MEASUREMENTS

Photoelectric Method of Precisely Measuring a Small Relative Shift between Two Series of Interference Fringes—V. L. Vlasov and A. N. Medvedev	1181	47
A Controllable Generator of Reference Voltages for Automatic Photoelectric Inspection-Sorting Equipment—G. V. Davtyan	1185	50

MASS MEASUREMENTS

Optimal Conditions for Accurate Measurements of Mass—M. I. Tyutikova	1188	52
Tables for the Equilibrium Positions of Primary-Standard and Laboratory Balances—V. G. Rumak	1192	54

MECHANICAL MEASUREMENTS

A Miniature Self-Balancing Gas Volume Meter—V. M. Levin, M. B. Lebedev, and V. P. Plotnikov	1195	56
Errors in Checks on an Electrodynamical Vibration Testbed—A. E. Manokhin	1198	57
An Optical Heterodyne Velocimeter—Yu. F. Zastrogin, V. R. Belevitnev, and M. I. Perets	1200	59
Error Reduction in Wire Strain-Gauge Switching—D. K. Boichenko and A. V. Zelenski	1204	61
Leak Tests on Large Vessels—Yu. N. Zhigulin	1206	62

THERMOPHYSICAL MEASUREMENTS

Measuring the Temperature Difference with a Frequency Converter—A. A. Bronnikov, V. S. Semenov, and V. V. Shevelev	1209	65
Acoustic High-Temperature Thermometer with a Sensor Made of Thin Refractory Delay Lines—F. G. El'darov, L. D. Gladikh, and A. I. Shil'kov	1213	67
Determination of Thermal-Vision System Parameters—Yu. V. Zharkoi, Yu. A. Popov, A. A. Ketkovich, G. S. Khulap, and V. A. Stokov	1217	69

MEASUREMENTS OF ELECTRICAL AND MAGNETIC QUANTITIES

Phase Shifter and Phase Splitter with Constant Modulus of the Transfer Coefficient—B. V. Gumenyuk	1220	71
Class 0.1 AC Current and Voltage Calibrators—V. M. Kalyapin	1223	73
Calculating the Magnetic and the Electrical Parameters of a Functional Inductive Transducer—M. F. Zaripov and I. A. Limanov	1227	76
Selection of the Standard Generator Signal Characteristic in the Certification of Correlation Dependence Analyzers—G. D. Sverdlichenko	1230	77

IONIZING RADIATION MEASUREMENTS

Methods and Apparatus for the Metrological Guarantee of the Equivalent Fast Neutron Dose — Yu. I. Bregadze and P. F. Maslyayev.....	1234	80
Measurement of Rapid Intensity Fluctuations of the Radiation of Pulsed Accelerators of Charged Particles — N. N. Balamatov.....	1239	83

BIOLOGICAL AND MEDICAL MEASUREMENTS

Study of Electro-Encephalographic Measurements — R. S. Dadashev and A. A. Sokova.....	1242	84
Metrological Provisions for Mass-Concentrated Dust Measurements — V. B. Parashin and A. V. Pozharov.....	1246	87

ASSISTANCE TO MEASUREMENT LABORATORY WORKERS

Reference Equipment for Certifying and Testing Frequency Deviation Meters as well as the FM Parameters of Combined Modulation Meters — P. A. Shpan'on, Yu. F. Pavlenko, A. F. Raiklman, and O. B. Kashchenko.....	1248	88
Installation for Testing Electricity Power Meters — G. A. Talalaev.....	1252	90
Device for Measuring Gas Humidity — V. S. Suvorkin.....	1256	93

TRAINING OF CADRES

Training of Metrologists in Various Industries — V. I. Artemov and G. F. Zimin.....	1258	94
---	------	----

Volume 18, Number 9

September, 1975

Standardization and Scientific and Technical Progress — V. V. Boitsov.....	1261	3
Development of Standardization in the Sphere of Metrological Provisions for National Economy — V. I. Kiparenko, L. M. Zaks, and N. P. Mif.....	1266	7
Comprehensive Standardization of Instrument Making and Automatic Control Systems — I. A. Almazov.....	1271	11
Role of State Testing in Controlling Measuring-Equipment Quality — A. I. Ivlev and N. D. Fursov.....	1275	13
Standard Reference Data — A Scientific Basis for the Standardization of Materials and Substances — V. V. Sychev, I. Kh. Sologyan, and A. D. Kozlov.....	1280	16
Standard Specimens and Standardization of Methods for Testing Raw Materials and Materials — A. B. Shaevich.....	1284	19
Improvement of Metrological Support to Time and Frequency Measurements — V. V. Sazhin, M. V. Bolotnikov, V. G. Il'in, and A. A. Ul'yanov.....	1288	21
Collaboration of COMECON Member Countries in the Sphere of Standardization — N. G. Kislova.....	1292	24
Standardizers and Metrologists of the Russian Federation on the Eve of the 50th Anniversary of State Standardization in the USSR — V. A. Greshnikov.....	1297	28
Standardization Work of the All-Union Scientific-Research Institute of Metrology (VNIIM) in the Field of Metrology — K. P. Shirokov, M. N. Selivanov, and P. N. Selivanov....	1299	29
Participation of the Metrological Institute in Developing Standardization — V. V. Kandyba..	1302	32
Program for Standardizing Information-Measuring Systems — E. T. Udovichenko.....	1304	33
Our Contribution to the "Quality" Five-Year Plan — B. I. Baranovskii.....	1306	34
LINEAR AND ANGULAR MEASUREMENTS		
Standardization of Linear Measurements — L. K. Kayak.....	1309	36
Role of Standardization in the Metrological Unification of Gears, Worms, and Threads in Engineering — G. Ya. Gafanovich and F. G. Simkina.....	1311	37
OPTICOPHYSICAL MEASUREMENTS		
Norm Documents Regarding Ways and Means of Testing Spectrometric Apparatus — N. R. Batarchukova and V. A. Nikitin.....	1313	38
Development of Refractometry and Standardization — E. A. Volkova and L. V. Nalbandov...	1315	40

International Recommendations on Polarimetric Saccharimeters — E. A. Volkova and I. S. Sorokina	1317	41
MASS MEASUREMENTS		
Standardization of Mass Measurements — N. A. Smirnova	1319	43
Metrological Support to Means of Measuring Large Masses — M. E. Bron, A. S. Vishenkov, E. I. Perel'man, and L. N. Ushakova	1321	44
MECHANICAL MEASUREMENTS		
Metrological Studies and Standardization in Force and Pressure Measurements — O. D. Buyanover, E. F. Dolinskii, A. V. Eryukhin, I. V. Plotnikov, G. I. Polukhin, V. N. Rusinova, and V. P. Shumilin	1324	46
Metrological Support in Standardizing Measurements of Constant and Oscillating Velocities and Accelerations — A. E. Sinel'nikov, V. S. Shkalikov, and V. I. Lebedev	1327	48
Standardization of Measurements on Shock-Acceleration Parameters — I. P. Gorbunov and V. S. Pellinets	1329	49
THERMOPHYSICAL MEASUREMENTS		
Standardization in Thermometry — B. N. Oleinik	1332	51
Advances in Standardization of High-Temperature Measurements — V. V. Kandyba and V. E. Finkel'shtein	1334	53
Basic Purposes of Standardization in Thermophysical Parameter Measurement — B. N. Oleinik, O. A. Sergeev, V. D. Mikina, and Yu. I. Aleksandrov	1336	54
MEASUREMENTS OF ELECTRICAL AND MAGNETIC QUANTITIES		
State of the Standardization of References and Methods of DC and AC Voltage Measurements — O. P. Galakhova and T. B. Rozhdestvenskaya	1339	56
System to Ensure Unanimity of Voltage, Power, and Attenuation Measurements in Coaxial Transmission Channels — A. M. Fedorov	1342	58
Metrological Security and Standardization of Measurements on the Magnetic Characteristics of Film Magnetic Materials — I. P. Gorbunov, S. F. Glagolev, and M. M. Chervinskii ...	1346	61
Role of Standardization in the Metrological Provisions for the Production of Permanent Magnets — M. A. Artemova, M. I. Grobovitskii, and V. I. Zingerman	1348	63
Present State and Development Prospects of Infrared Radiometry — V. V. Babushkin	1351	64
Metrological Support and Standardization in Measurements in Radiosignal Spectra and Shape Parameters — P. A. Shpan'on and N. B. Petrov	1355	67
Metrological Support to Power Measurements in the Millimeter Range — A. N. Akhiezer and A. P. Sen'ko	1357	69
IONIZING RADIATION MEASUREMENTS		
Standardization in Ionizing Radiation Measurement — L. N. Fedorova and M. F. Yudin	1359	70
Standardization of Measurements of the X-Ray and Gamma-Ray Exposure Dose — M. F. Yudin and G. P. Ostromukhova	1362	72
Construction of Standards and Standardization of the Dosimetry of Beta and Neutron Radiation — M. F. Yudin, I. A. Uryaev, A. P. Yanovskii, and L. A. Popruzhko	1364	73
Metrological Support in Neutron Measurements — I. A. Yartisyne	1366	75
Dosimetry Standardization in Radiation Technology — V. V. Generalova and M. N. Gurskii	1368	76
BIOLOGICAL AND MEDICAL MEASUREMENTS		
Standardization of Biomedical Measurements — R. S. Dadashev	1371	78
GENERAL PROBLEMS OF METROLOGY AND MEASUREMENT TECHNIQUES		
Standardization of the Units of Physical Quantities in the USSR — G. D. Burdun and B. M. Kovalenko	1375	81
Activity of the All-Union Association "Etalon" — N. N. Pinyushin	1379	84
50 Years in the Service of the National Economy — N. I. Dutikov	1382	86

ASSISTANCE TO MEASUREMENT LABORATORY WORKERS

Checking Sine Bars and Measurement Wires — V. I. Kimosov, E. Ya. Surova, Yu. Kh. Terent'eva, and S. Ya. Fedyukina	1389	91
Apparatus for Testing 500-kg Weights of the 4th Class of Accuracy — S. G. Kroitoru	1392	93
High-Resistance Null Indicator — M. M. Dyukov and A. V. Il'in	1394	93
Vladimir Vasil'evich Kandyba (on His 60th Birthday)	1395	94

Volume 18, Number 10 October, 1975

STATE STANDARDS

Special Official Calibrating Setup for the Units of Length, Velocity, and Acceleration in the Oscillatory Motions of a Solid Body in the Frequency Range of $0.5-10^4$ Hz — B. É. Blanter, A. F. Bordilovskii, A. E. Sine'nikov, and V. S. Shkalikov	1397	3
--	------	---

METROLOGICAL SERVICE

Metrological Provision of Instrument-Making Industry — M. A. Golovashkin, V. D. Mikhailenko, N. P. Mif, and M. S. Shkabardnya	1401	5
Prospects of Development of Metrological Provision of the Electronic Industry — N. G. Pikin, V. M. Kulakov, and L. E. Topaz	1403	6
Metrological Service of an All-Union Trust — A. I. Tikhonov, A. G. Shaikhullin, A. M. Dolgushin, and R. F. Babikov	1406	8
Experience with Working of the Metrological Service of an Industrial Trust — U. S. Mallin	1408	9
Metrological Provisions for High-Temperature Measurements — V. V. Kandyba	1410	10
Fundamental Problems in Ensuring Unity of Measurements in Gear Systems — O. V. Prusikhin and G. Ya. Gafanovich	1412	11
Standard Samples — a Basis for the Metrological System Designed to Ensure High Quality in the Products of Ferrous Metallurgy — Yu. L. Pliner, V. M. Ogurtsov, A. Ya. Samokhina, A. V. Silin, and I. V. Sokolova	1414	12
Metrological Provisions for Measuring Large Direct Current in Nonferrous Metallurgy and Tasks for Their Improvement — N. G. Semenko	1417	14
Metrological Service of the Building Materials Industry — Yu. A. Osipov and V. V. Kulakov	1420	16
Metrological Preparations for Production — G. B. Lazenat	1423	17
Experience from Organizing Metrological Services at Enterprises of the Ministry of Light Industry of the Kazakh SSR — L. P. Kuz'mina	1425	18
Experience from the Operation of the Metrological Service of a Silk Farm — V. K. Spirin	1427	19
Metrological Plant of the Meat Industry — G. D. Konchakov and L. D. Oleinikova	1429	20

GENERAL PROBLEMS OF METROLOGY AND MEASUREMENT TECHNIQUES

Criteria for Estimating Multiparameter Measuring Transducers — A. N. Plakhotnyuk	1431	22
Comparison of the Errors for the Filtering and the Balancing-Filtering Methods of Measuring the Nonlinear Distortion Factor — A. I. Trunov	1435	23

LINEAR AND ANGULAR MEASUREMENTS

Automatic Device for Precise Stopping of Objects by Means of a Graduated Rule — P. P. Alekseev, L. K. Kayak, N. V. Trishin, and O. V. Yachmentsev	1440	26
A New Coordinate Measuring Device — F. M. Danilevich, M. G. Boguslavskii, I. A. Sokolov, and V. A. Soitu	1443	28
Monitoring and Calibrating Pulse-Type Ultrasonic Thickness Gages by Electronic Simulation of the Thickness Standards — M. P. Ganzin	1447	30
A Capacitive Thickness Gage with Improved Measuring Characteristics — V. N. Dorogov and S. N. Shvaiko	1450	32

OPTICOPHYSICAL MEASUREMENTS

Instrument for Measuring Laser Radiation Power Density — M. I. Dukhanina, G. I. Rukman, E. A. Sokolov, and A. V. Khromov	1452	33
--	------	----

Preliminary Estimation of Error in an Extremal Photoelectric Transducer — V. K. Pultorak, M. G. Rezanova, and E. P. Osmolovskaya	1454	34
Design of Reticular Radiation Absorbers Prepared by a Photochemical Method — M. I. Alekseeva	1457	35
Optical Target Coordinators — K. A. Gulgazaryan	1460	37
MASS MEASUREMENTS		
Testing 2nd Grade and 2nd Class Weights by Means of the D. I. Mendeleev Method — L. G. Dashkleva, R. V. Dybskii, V. D. Zhabotinskaya, and S. N. Chemets.	1463	38
Certification of Weighing Devices by Means of the Sequential Substitution Method — E. I. Perel'man and M. E. Bron	1466	40
Automatic Loading Mechanism in Piston-Type Load-Carrying Instruments — E. I. Spiridonov and V. A. Turovskii	1469	41
MECHANICAL MEASUREMENTS		
Errors in Flow Reproduction and Measurement Systems — B. V. Biryukov, M. A. Danilov, and S. S. Kivilis	1471	43
Single-Channel Ultrasonic Flowmeter with Pulse-Frequency Detector — S. P. Gazetov	1476	45
Standardization of Fluid Flow Velocity Parameters — A. N. Gordov and V. A. Kuz'min	1480	47
Standardization of Methods and Instruments for Measuring Density and Viscosity at the All- Union Scientific-Research Institute of Metrology (VNIIM) — Yu. P. Busarov, M. I. Kondratenko, and L. P. Stepanov	1482	49
Readings Instability Resulting from the Elastic Sensing Element's Elastic Lag — A. M. Kipnis ...	1484	50
Coordinate Device for Displacing Transducers in Liquid Flows — P. F. Kurochka, Yu. D. Levchenko, and N. V. Khoteev	1488	52
THERMOPHYSICAL MEASUREMENTS		
Design and Precision of Thermistors' Operation with Standard Automatic Bridges — G. A. Lushchayev, V. A. Karchkov, E. I. Fandeev, I. Kh. Sologyan.	1491	54
Equation of the p-T Diagram at the Liquid-Vapor Phase Equilibrium — M. K. Zhokhovskii. ...	1495	56
Characteristics of Measurements Pertaining to the Temperature Coefficient of Dielectric Permittivity and Peculiar to Petroleum — S. D. Benin, I. Yu. Klugman, N. B. Kobyllov, and K. S. Roman'ko.	1500	59
MEASUREMENTS OF ELECTRICAL AND MAGNETIC QUANTITIES		
The Simulator — A Measure of Resistances up to 10^{17} ohm — A. M. Ilyukovich and L. V. Klem'min. Fundamental Relations for Determining the Sensitivity of a Nanowebermeter with an LC- Integrator — R. A. Bashirov	1504	61
Electrical Bridges Supplied with Voltage Pulses and Balanced with Resistors — A. I. Vlasov, V. P. Ivanov, and G. I. Peredel'skii	1507	63
Indirect Method of Measuring Periodic FM Signals — N. F. Bezhenov	1509	64
Compensation of Pulse Distortions Using Ferrite Rings — Ch. Yu. Val'skis	1512	66
Calibrating Industrial Electrometers' Measurement Resistors — V. I. Karlashchuk	1515	68
Unit to Reproduce Phase Shifts — N. S. Zhilin and L. S. Subbotin	1518	70
Characteristics of Resonance Measurements with Negative-Parameter Elements in the Circuit — A. L. Frumkin and E. A. Shichko	1521	71
Measuring the Ratio and the Angle Error of High-Voltage Potential Transformers — B. N. Dudkevich, A. S. Litvinenko, and A. Ya. Pogodaev	1524	73
Wide-Range Proton Tesla Meter — V. M. Simonov and G. K. Yagola	1526	74
MEASUREMENTS OF IONIZING RADIATIONS	1529	76
Calculation of the Statistical Error and Optimum Count Rate of Radioisotope Instruments — A. M. Onishchenko, A. G. Vasil'ev, and V. M. Slavinskii	1532	78
Measurement of Gamma-Radiation Exposure Dose Rate with an Instrument Incorporating a Silicon Detector — V. S. Gorev, V. A. Kozhemyakin, M. D. Firsov, V. A. Fomenko, A. L. Kholodkov, and A. G. Shvydchenko.	1535	80

PHYSICOCHEMICAL MEASUREMENTS

Requirements of Standard Samples of Materials Having Low Magnetic Permeability — M. A. Artemova, M. I. Grobovitskii, and V. I. Zingerman	1537	81
Features of Metrological Provisions for Hydrodynamic Measuring Equipment — S. A. Berzin, A. G. Ivanova, V. A. Kuz'min, and D. F. Tartakovskii	1540	83
Production of a Reference Frequency-Operated Digital Hygrometer — S. N. Gershovich	1543	85
Adapter to Check Beats — P. I. Mekhonoshin	1547	88
Selecting Differential-Manometer Flowmeters for Measuring Vapor and Gas Flows — E. P. Pistun	1549	89
Measurement of Parasitic Amplitude Modulation of FM Generators — A. V. Zen'kovich and V. I. Tipashov	1551	90
Comparator with Automatic Balancing for Checking Three-Phase Wattmeters and VAR meters — V. A. Khomyak and T. V. Sukhenko	1554	91

Volume 18, Number 11 November, 1975

Appeal to the Workers, Engineers, Scientists, and All Employees of the USSR Standardization Services	1557	3
Report of V. V. Boltsov, Chairman of the USSR State Committee of Standards (Gosstandart), to Its Official Session Dedicated to the 50th Anniversary of State Standardization in the USSR	1558	4
To the Central Committee of the Communist Party of the Soviet Union and the USSR Council of Ministers	1564	8
METROLOGICAL SERVICE		
Standard Regulations on Departmental Metrological Services — L. M. Zaks and V. S. Agamirova	1566	9
Metrological Study of Reliability of Measurement Means at the Stage of State Testing — V. L. Zhutovskii, B. I. Kozlov, A. E. Fridman, and N. D. Fursov	1571	11
Development of a System of Technological Normative Documentation According to Methods and Means of Testing — G. A. Safarov, S. B. Bulatov, and V. A. Bryukhanov	1574	13
Economically Optimal Distribution of Test Equipment in Units of the State Metrological Service — V. I. Vinnik, L. V. Besfamil'naya and M. F. Malitskii	1578	15
Experience from Metrological Study of Tentative Standards — V. I. Paneva, G. A. Petrova, and A. B. Shaevich	1582	18
Step-by-Step Method for Repairing Measuring Instrument at the "Etalon" Experimental Plant in Volgograd — V. G. Tkachev	1585	20
Methods for Raising the Efficiency of Radio-Measuring Instruments' Repairs — N. I. Vlasov	1587	20
Measurement Precision Guarantees Efficient Accounting and Saving of Oil Products — V. V. Tikhonov and N. A. Yurtaev	1588	21
GENERAL PROBLEMS OF METROLOGY AND MEASUREMENT TECHNIQUES		
Criteria for Evaluating the Precision of Digital Angle Converters — V. G. Domrachev and B. S. Meiko	1590	22
Digital Angle Converters with Synchronous Elements — M. V. Bogdanovskaya, A. P. Zharkov, A. M. Nikitin, V. P. Petropavlovskii, and N. V. Sinitsyn	1596	26
Phase-Shifting Circuit with Increased Electric Reduction Coefficient — A. T. Artamonov, N. P. Volkov, and S. T. Martirosyan	1599	28
Analog-Digital Converter of Displacements in a Multichannel Phase Shifter — A. V. Kosinskii ..	1602	30
Raising the Accuracy of Coding Phase Shifts of Sinusoidal Voltages in a Digital Printer — A. S. Budanov, A. A. Gavrilov, and V. P. Maksimov	1607	32
Digital Printers with Primary Induction Converter — O. A. Pavlov	1611	35
Efficiency of Methods for Increasing the Reliability of Digital Printers — V. P. Shkolin	1615	37

Analysis of the Method of Raising the Accuracy of a Phase Shifter — A. A. Batovrin and V. M. Gugelev	1621	41
Synthesizing Single-Track Combinatorial Scales by Means of Large-Store Clusters — Yu. S. Sharin and A. A. Mironenko	1625	44
A Statistical Method of Calculating the Dynamic Errors of Digital Printers — V. G. Domrachev .	1629	46
LINEAR AND ANGULAR MEASUREMENTS		
Differential Methods of Accuracy Checking for Metal-Cutting Lathes — Yu. A. Starostinetskii	1632	49
Laser Interferometer for Scales — T. M. Domareva, N. V. Trofimova, Ya. A. Raikhman, and V. I. Chukhlilb	1636	51
OPTICOPHYSICAL MEASUREMENTS		
Determination of the Time Characteristics of Fast Response Photocells — V. V. Brunov, A. F. Kotyuk, L. N. Samoilov, S. V. Tikhomirov, and V. A. Yakovlev	1639	54
Determination of Coefficients of the Output Characteristic of a Ring Gas Laser — V. E. Privalov and Yu. V. Filatov	1641	55
MECHANICAL MEASUREMENTS		
Increasing the Life of Liquid Meters with Oval Gears — N. G. Farzana and L. M. Lifshits	1645	58
Method for Measuring Precisely the Integral Parameter of Single Processes — M. I. Subbotin and V. S. Pellinets	1647	59
THERMOPHYSICAL MEASUREMENTS		
Equipment for Certifying Pulsed Plasma Radiation Sources — G. N. Brazhnichenko, N. L. Gogolev, I. N. Dolitskii, and T. A. Fedorenko	1651	61
Standard Samples for Classification of Thermoelectrode Materials — B. K. Bragin, I. E. Dobrovinskii, B. P. Pavlov, and L. I. Stavtseva	1654	62
The Method of Two Containers in Gas Thermometry — I. I. Kirenikov	1656	64
MEASUREMENTS OF ELECTRICAL AND MAGNETIC QUANTITIES		
Nonlinear Scattering of Electromagnetic Waves and Its Possible Use in Studying Plasmas — L. A. Nazarenko	1659	65
Determination of Insulation Resistances of Separate Phases and Capacity to Ground in a Network with an Ungrounded Neutral — E. F. Tsapenko and V. P. Korablev	1663	67
Selective Digital Voltmeter with Electronic Control — V. N. Kolesov, B. V. Malyshev, and B. S. Yanchurkin	1666	68
A Method of Measuring the Q Factor of Feedthrough Waveguide Resonators — V. P. Turyanskii and V. M. Sokolov	1669	70
Determining the Parameters of the Calibration Network Used for the Measurement of Transistor Characteristics — A. I. Khar'ko, Ya. N. Druzhilovskii, and É. N. Smirnova ..	1672	71
Measuring the Spectral Density of the Gate Noise Current in Field-Effect Transistors with a p-n Junction — L. P. Feshchenko and V. Z. Chernikov	1675	73
Indication of Second-Harmonic Nuclear-Magnetic-Resonance Signals on Teslameters — D. I. Cheburkov	1678	74
Microwave Instability Meter — B. R. Derchinyants	1680	75
ACOUSTICAL MEASUREMENTS		
Stability Analysis of Model PSPP-80 Quartz Transducers — L. Ya. Mal'kov	1682	76
PHYSICOCHEMICAL MEASUREMENTS		
Engineering Quality Assurance of Measurements Pertaining to Corrosion of Metals — A. V. Khranov	1686	78
Engineering Quality Assurance of Conductance Measuring Instruments — G. V. Chanishvili and T. V. Ionatamishvili	1688	80

ASSISTANCE TO MEASUREMENT LABORATORY WORKERS

Testing Coercimeters Provided with Electromagnetic Attachments - V. A. Greshnikov, V. A. Konstantinov, and I. T. Gubin	1692	82
GK-10A-Type Calibrating Generator - M. S. Roitman, Yu. M. Fomichev, V. A. Butenko, V. M. Sergeev, A. I. Kramnyuk, and Yu. I. Latonov	1696	84
Instrument for Adjusting Electricity Meters - A. D. Popov	1698	85
Automatic Testing System for Electricity Meters - S. R. El'kin, V. V. Ivanov, S. Sh. Simaev, B. Sh. Barbakadze, B. D. Pkhakadze, and V. S. Khuchua	1701	86
Automation of the Adjustment and Testing of Electricity Meters - V. I. Uvarov	1703	87
Cylindrical Ionization 4 π -Chamber for Testing the Nuclide Activity of Reference Gamma Sources - A. F. Drichko	1705	88

INTERNATIONAL COLLABORATION

15th General Conference on Weights and Measures - A. S. Obukhov	1706	89
Fifth Session of the Working Group for Drafting Comecon Standard Reference Data - I. Kh. Sologyan, V. V. Sychev, and A. D. Kozlov	1713	93
Fourth Session of the "Interétalonpribor" Scientific and Production Association's Council of Plenipotentiaries - G. K. Afanas'ev	1715	94

Volume 18, Number 12 December, 1975

50TH ANNIVERSARY OF STANDARDIZATION IN THE USSR

Scientific Session on "Standardization and Scientific and Technical Progress"	1717	3
Standardization and Scientific and Technical Progress	1719	4

GENERAL PROBLEMS IN METROLOGY AND MEASUREMENTS TECHNIQUES

Fundamental Concepts in the Theory of Dynamic Measurements - K. P. Shirokov, V. O. Arutyunov, V. A. Granovskii, V. S. Pellinets, S. G. Rabinovich, and D. F. Tartakovskii	1726	9
The Concept "Dynamic Measurements" - D. V. Bazhenov and V. V. Chernov	1735	14
Optimum Statistical Conversion of Instrument Signals as a Means of Increasing the Accuracy of Measurements - I. B. Chelpanov	1740	17
Dynamic Measurements of Radiation Energy by Means of a Kalman Filter - S. V. Oleinik and D. F. Simbirskii	1746	20
A Method of Processing the Results of Dynamic Temperature Measurements - G. P. Zedginidze, Z. Z. Gogoladze, and D. V. Ioramashvili	1750	22
An Approximate Method of Calculating the Dynamic Errors in Linear Conversion - M. D. Vaisband	1752	22
Norm Setting [Standardization] and Determination of the Dynamic Properties of Measuring Devices - V. O. Arutyunov, V. A. Granovskii, and S. G. Rabinovich	1756	25
Normalizing Documents for Dynamic Metrological Characteristics of the State System of Industrial Instruments (GSP) - V. M. Khrumalo	1761	28
A Correlation Method of Determining the Dynamic Characteristics of Stroboscopic Transducers - V. K. Baïtursunov	1766	30

LINEAR AND ANGULAR MEASUREMENTS

Surface Waviness and Its Standardization - G. D. Burdun, G. Trumpol'd, T. S. Lopovok, and A. Paul'	1770	33
Set of Attachments for Testing Universal Measuring Microscopes - E. B. Ignat'ev and M. E. Kotlyarker	1773	35
Ways and Means of Transmitting the Values of the Unit of Plane Angle - V. V. Kopytov and V. D. Lizunov	1776	36
Testing the Precision of Complex Involute Toothed Plug Gauges - A. Ya. Idelevich	1779	38

OPTICOPHYSICAL MEASUREMENTS

- Metrological Support in Parameter Measurements in Ophthalmological Optics — G. I. Strakhun 1781 40
 Metrological Problems in Sensitometry — N. A. Balabukha, V. A. Korndorf, and R. A. Pavlova .. 1783 41
 Methods of Measuring the Infrared Radiation with the Effect of Surface Emissivity Eliminated
 — N. I. Vlasov and M. L. Kaplan 1785 41
 Measuring the Wavelength of a Helium-Neon Laser — V. I. Bobrik, Yu. D. Kolomnikov,
 and B. S. Mogil'nitskii 1788 43

MECHANICAL MEASUREMENTS

- Measuring Transducer for Determining the Velocity and Flow Rate of Plastic Fluids
 — V. A. Usachev 1790 44
 Infrasonic Volume Gauge — B. K. Bryukhanov and B. K. Grigorovskii 1792 45

MEASUREMENT OF ELECTRICAL AND MAGNETIC QUANTITIES

- A Stroboscopic Converter for Determining the Properties of Soft-Magnetic Materials
 during Pulse Remagnetization — G. A. Antropov and M. Ya. Lyubimtsev 1794 47
 Measuring Cell for Galvanomagnetic Investigations of Liquid Metals
 and Semiconductors — A. A. Andreev, M. Mamadalliev, and A. R. Regel' 1796 48
 Measurement of Small Inductances — V. K. Kamuz and V. Z. Lubyanyi 1798 49
 Instruments for Measuring the Equivalent Circuit Parameters of Quartz
 Resonators — V. N. Grigor'ev 1799 49
 Method of Measuring the Dielectric Losses of Polar Dielectrics in a Wide Frequency
 Interval — O. I. Yastrebov 1801 51
 An Instrument for Checking Phasemeters — A. E. Makievskii 1804 52

ACOUSTICAL MEASUREMENTS

- Calibration of Sound Receivers by a Modified Piezoelectric Balancing
 Method — N. N. Dmitrevskii, L. E. Pavlov, and S. V. Sil'vestrov 1809 55
 Computing Method for Acoustic Resonators in Measuring Devices for Pneumatic-Acoustic
 Automation — I. Sh. Kogan and S. G. Sazhin. : 1812 56

PHYSICOCHEMICAL MEASUREMENTS

- The Work of the All-Union Metrology Research Institute on Standardization in Ph
 Measurement — M. Yu. Gorina 1816 59
 The Equations of State of a Gas Mixture for Gas-Analysis Calculations — L. M. Burshtein 1818 60
 Choice of Transducer for Plasma Jet Reaction Meters — L. I. Ageev, S. D. Grishin,
 S. N. Ogorodnikov and L. M. Piskalov 1823 62
 Automatic Remote Monitoring of Dust Concentration in Air — R. G. Nonezov, R. B. Znamenskii,
 and V. V. Tyazhel'nikov 1826 64

ASSITANCE TO MEASUREMENT LABORATORY WORKERS

- Clamp with Continuous Height Control — R. V. Yakirin 1828 65
 Modification of MP-60 Dead-Weight Piston Gauge — N. P. Skryabin 1829 66
 Transducer for Measuring Low Angular Speeds — V. V. Iovenko 1830 66
 Thermostat for Standard Cells — R. É. Pashkevich, L. N. Egorychev, V. I. Asmus,
 A. S. Gokhner, and N. N. Fedoseev 1831 67
 Using the R345 Potentiometer as a Voltage Calibrator — N. I. Kotel'nikov 1832 67
 Pulse-Echo Ultrasonic Thickness Gauge with a Reduced Dead Zone — N. I. Brazhnikov 1834 68
 A Circuit for Measurement and Control of the Speed of a Rotating Shaft — V. A. Konovalov,
 V. V. Lukoshkov, and Yu. M. Stakhiev 1836 69
 Measuring Pulse Durations below 1 μ sec with Ch3-34A (Ch3-34) Frequency
 Counter — V. M. Artemov, V. D. Merkulov, and V. M. Belyaev 1837 69
 Compact Setup for Checking Gamma Radiation Monitors — L. A. Pontus, Yu. P. Glukhov,
 and B. S. Optankov. 1839 71
 Miniature Instrument for Measuring Internal Diameters — V. M. Sterzhakov
 and I. M. Shcherbakov 1842 72
 Portable Pneumatic Attachment — S. G. Kozlov 1844 73

Optical Illuminator for Testing Large-Size Height Gauges — T. Ya. Rakunova.....	1846	74
Evaluation of Air Density for Calculating Aerostatic-Force Corrections in Precise Measurements of Mass — S. I. Toropin and V. C. Snegov.....	1847	75
Utilization of Magnetic Fields for Testing MF-10F Ferritometers — V. A. Greshnikov and I. T. Gubin.....	1849	76
INTERNATIONAL COLLABORATION		
Plenary Session of the Technical Committee ISO/TC 30 — V. D. Mikhailenko, A. A. Tupichenkov, V. G. Tseitlin, V. M. Kalintseva, and L. V. Selivanov.....	1853	78
Conference on the Metric Systems and Legal Metrology — V. V. Belyakov and L. S. Novikova.....	1855	79
INDEX		
Author Index, Volume 18, Numbers 1-12, 1975.....	1859	
Table of Contents, Volume 18, Numbers 1-12, 1975.....	1867	

